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AN

INDEX OF DISEASES

AND THEIR

TREATMENT.

BY

THOMAS HAWKES TANNER, M.D., F.L.S.,

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS, &c.

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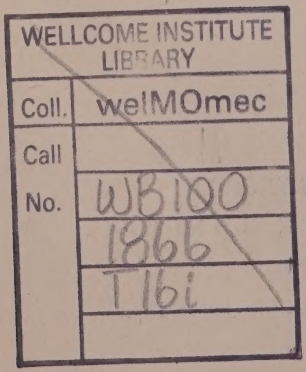

PREFACE.

THE present volume is intended to facilitate the daily work of the busy practitioner; and especially to help him in successfully managing such cases of disease as do not yield to treatment so readily as might be desired. The student who wishes to learn the nature of the tools with which he will have to work, and the best mode of employing them, must seek for this information in other treatises. But it is hoped that the actual labourer, who has employed his customary weapons and finds himself baffled, will receive useful suggestions from the following pages.

In constructing the various articles of which this Index is composed, the Author has endeavoured by giving a brief description of each disease to make its diagnosis sure. With regard to the sections on Treatment, it is to be remembered that the numbers appended to the drugs not only refer to the Formulæ, but indicate those remedies on which it is believed that reliance should be chiefly placed. As a rule, however, most of the agents which have been recommended by different authorities are mentioned; although where they are not deemed particularly useful either no reference is given for the mode in which they are to be prescribed, or they are placed in a separate paragraph.

It is only necessary to add that the Formulæ have been reprinted from the last edition of the Author's *Practice of*

Medicine, with a few alterations and additions. Each prescription has been written in accordance with the rules and preparations of the British Pharmacopœia,—a work which the practitioner will esteem the more highly, the more attentively he studies its pages.

HENRIETTA STREET, CAVENDISH SQUARE.
August, 1866.

TABULAR SYNOPSIS.

ABSCESSES:—

I. Abscess of Brain, p. 41.
II. Abscess of External Auditory Canal, p. 183.
III. Abscess of Tonsil, p. 264.
IV. Retro-Pharyngeal Abscess, p. 231.
V. Empyema, p. 86; 209.
VI. Abscess of Abdominal Walls, p. 1.
VII. Hepatic Abscess, p. 124.
VIII. Perinephritic Abscess, p. 1; 200.
IX. Abscess around Cæcum, p. 27; 202.
X. Prostatic Abscess, p. 218.
XI. Pelvic Abscess, p. 1; 198.
XII. Ovarian Abscess, p. 1; 188.
XIII. Abscess of Vaginal Labia, p. 281.
XIV. Lumbar, Psoas, and Iliac Abscess, p. 158.
XV. Mammary Abscess, p. 159.
XVI. Abscess of Bone, p. 182.
XVII. Boils, p. 21. Styes, p. 250.
XVIII. Carbuncle, p. 29.
XIX. Bubo, p. 25.
XX. Strumous Abscess, p. 239.

BLADDER DISEASES:—

I. Vesical Irritability, p. 284.
II. Vesical Spasm, p. 285.
III. Vesical Paralysis, p. 285.
IV. Vesical Inflammation { 1. Acute Cystitis, p. 283. 2. Chronic Cystitis, p. 284.

BLADDER DISEASES—(*continued*):—

V. Vesical Tumours, p. 286.
VI. Urinary Calculi, p. 271.
VII. Enuresis, p. 92.

BLOOD DISEASES:—

I. Anæmia, p. 7.
II. Chlorosis, p. 44.
III. Graves' Disease, p. 113.
IV. Leucocythemia, p. 156.
V. Hyperæmia, p. 135.
VI. Ichorhæmia, or Pyæmia, p. 138; 222.
VII. Piarhæmia, p. 207.
VIII. Acholia, p. 1.
IX. Glucohæmia, p. 70.
X. Uræmia, p. 270.
XI. Hæmatozoa, p. 114.
XII. Thrombosis, p. 260. Embolism, p. 85.
XIII. Scurvy, p. 240.
XIV. Purpura, p. 222.
XV. Black Leg, p. 21.
XVI. Cellulitis Venenata, p. 37.
XVII. Glanders, p. 109.
XVIII. Hydrophobia, p. 135.
XIX. Elephantiasis Græcorum, p. 84.
XX. Pellagra, p. 197.

BLOODVESSEL DISEASES:—

I. Aortitis, p. 11.
II. Aortic Aneurism, p. 9.
III. Phlebitis, p. 203.
IV. Phlebolites, p. 203.
V. Phlegmasia Dolens, p. 203.
VI. Nævus, p. 171.

BONE DISEASES:—

I. Caries, p. 35.
II. Necrosis, p. 173.
III. Periostitis, p. 200.
IV. Osteitis, p. 182.
V. Osteomyelitis, p. 182.
VI. Osteomalacia, p. 182.
VII. Osteoid Cancer, p. 182.
VIII. Rickets, p. 234.
IX. Coccyodynia, p. 49.
X. Spina Bifida, p. 243.

BRAIN DISEASES:—

I. Apoplexy, p. 13. Cerebral Hæmorrhage, p. 14; 38.
II. Hydrocephalus, p. 133. Hydrocephaloid Disease, p. 133.
III. Coma, p. 51.
IV. Compression of Brain, p. 52.
V. Concussion of Brain, p. 52.
VI. Coup de Soleil, p. 61.
VII. Inflammation . .
1. Simple Meningitis, p. 38.
2. Cerebritis, p. 39.
3. Acute Encephalitis, p. 39.
4. Chronic Encephalitis, p. 40.
5. Softening; Induration; Tumours, p. 41.
6. Tubercular Meningitis, p. 42.
7. Hypertrophy; Atrophy, p. 43.
VIII. Alcoholism . .
1. Delirium Tremens, p. 70.
2. Dipsomania, p. 74.
IX. Insanity . . . .
1. Progressive Paralysis, p. 142.
2. Insanity with Epilepsy, p. 143.
3. Mania, p. 143.
4. Puerperal Mania, p. 219.
5. Monomania, p. 143.
6. Dementia, p. 144.
7. Idiocy, p. 144.
8. Cretinism, p. 62.
X. Headache, p. 117.
XI. Vertigo, p. 283.
XII. Paralysis, p. 189.

BRAIN DISEASES—(*continued*):—

XIII. Epilepsy, p. 92.
XIV. Aphasia, p. 11.
XV. Convulsions, p. 57. Eclampsia Nutans, p. 82.
XVI. Amaurosis, p. 4.

BREAST DISEASES:—

I. Inflammation
  1. Acute Mammitis, p. 162.
  2. Chronic Mammitis, p. 163.

II. Tumours
  1. Lacteal, p. 160.
  2. Fatty, p. 161.
  3. Enchondromatous and Fibroid, p. 161.
  4. Fibro-Plastic, p. 161.
  5. Hydatid, p. 161.
  6. Chronic Mammary, p. 161.
  7. Mucous Cysts, p. 162.
  8. Carcinoma, p. 162.

III. Mastodynia, p. 163.
IV. Mammary Abscess, p. 159.
V. Mammary Hypertrophy, p. 160.
VI. Mammillary, or Nipple Diseases, p. 162.
VII. Agalactia, p. 3.
VIII. Galactorrhœa, p. 103.

CALCULOUS CONCRETIONS:—

I. Rhinolithes, p. 234.
II. Phlebolites, p. 203.
III. Intestinal Concretions, p. 146.
IV. Gall-Stones, p. 103.
V. Pancreatic Calculi, p. 189.
VI. Urinary Calculi, p. 271.
VII. Tophi or Chalk-Stones, p. 112.
VIII. Lacteal Calculus, p. 160.

CANCER (p. 28):—

I. Varieties
  1. Scirrhus, or Hard Cancer, p. 237.
  2. Medullary, or Soft Cancer, p. 164.
  3. Epithelial Cancer, p. 95.

CANCER—(*continued*):—

II. Sub-Varieties . . .
1. Colloid, or Gum Cancer, p. 50.
2. Melanoid, or Black Cancer, p. 164.
3. Osteoid Cancer, p. 182.
4. Fungus Hæmatodes, p. 113.
5. Villous Cancer, p. 286.

III. Of Special Organs .
1. Cancer of Tongue, p. 262.
2. Cancer of Tonsil, p. 264.
3. Cancer of Œsophagus, p. 179.
4. Cancer of Stomach, p. 105.
5. Cancer of Duodenum, p. 77.
6. Cancer of Rectum, p. 223.
7. Cancer of Liver, p. 120.
8. Cancer of Kidney, p. 227.
9. Cancer of Pancreas, p. 189.
10. Cancer of Breast, p. 162.
11. Cancer of Vulva, p. 288.
12. Cancer of Uterus, p. 273.
13. Cancer of Penis, p. 199.
14. Cancer of Testicle, p. 257.
15. Chimney-Sweeper's Cancer, p. 44.
16. Cancer of Bladder, p. 286.
17. Pulmonary Cancer, p. 220.
18. Cardiac Cancer, p. 31.
19. Mediastinal Cancer, p. 148.

DEFORMITIES:—

I. Spinal Curvature, p. 244.
II. Rickets, p. 234.
III. Spina Bifida, p. 243.
IV. Osteomalacia, p. 182.
V. Coccyodynia, p. 49.
VI. Wry-Neck, p. 293.
VII. Club Foot, p. 49.
VIII. Flat Foot, p. 100.
IX. Knock-Knees, p. 153.
X. Epispadias, p. 137.
XI. Hypospadias, p. 137.
XII. Cretinism, p. 62.

DEGENERATIONS OF TISSUE:—

I. Fatty Degeneration, p. 99.
II. Amyloid Degeneration, p. 5.
III. Mineral Degeneration, p. 167.

DEGENERATIONS OF TISSUE—(*continued*):—

IV. Osteomalacia, p. 182.
V. Cardiac Atrophy, p. 30.
VI. Hepatic Degenerations, p. 121.
VII. Renal Degenerations, p. 228.
VIII. Arcus Senilis, p. 60.
IX. Cerebral Softening, p. 41.

DROPSY (p. 75):—

I. Ascites, p. 15.
II. Œdema, p. 178.
III. Anasarca, p. 7.
IV. Sclerema, p. 238.
V. Bright's Disease, p. 22; 228.
VI. Acute Desquamative Nephritis, p. 174.
VII. Hydrocephalus, p. 133.
VIII. Hydrothorax, p. 135; 209.
IX. Pneumothorax, with Effusion, p. 212.
X. Cardiac Dropsy, p. 33.
XI. Hydro-Pericardium, p. 135; 199.
XII. Beriberi, p. 20.
XIII. Hydrocele, p. 132.
XIV. Scrotal Œdema, p. 239.
XV. Hydronephrosis, p. 134.
XVI. Hydrorachis, p. 135; 243.
XVII. Œdema of Glottis, p. 155.
XVIII. Ovarian Dropsy, p. 186.
XIX. Dropsy of Fallopian Tube, p. 99.

EAR DISEASES:—

I. Otitis . . . . . { 1. Inflammation of External Meatus, p. 183. 2. Inflammation of Membrana Tympani, p. 184. 3. Inflammation of Tympanic Cavity, p. 184.
II. Diseases of Eustachian Tube . . . . . { 1. Obstruction of Tube, p. 97. 2. An Open Condition of Tube, p. 98.
III. Otalgia, or Earache, p. 183.
IV. Otorrhœa, p. 185.
V. Otorrhagia, p. 186.

EAR DISEASES—(*continued*) :—

VI. Deafness . . . . . { 1. Rheumatism of Ear, p. 64. 2. Gout of Ear, p. 65. 3. Nervous Deafness, p. 65.

VII. Hæmatoma Auris, p. 113.

ENTOZOA (p. 89) :—

I. Trematoda, or Flukes . { 1. Fasciola Hepatica, p. 89; 114. 2. Distoma Lanceolatum, p. 89. 3. Distoma Ophthalmobium, p. 89. 4. Distoma Crassum, p. 89. 5. Distoma Heterophyes, p. 89. 6. Distoma Hæmatobium, p. 89; 114. 7. Tetrastoma Renale, p. 89. 8. Hexathyridium Pinguicola, p. 89. 9. Hexathyridium Venarum, p. 89; 114.

II. Cestoda, or Tapeworms { 1. Tænia Solium, p. 89; 148. 2. Tænia Mediocanellata, p. 90; 148. 3. Tænia Marginata, p. 90. 4. Tænia Echinococcus, p. 90; 123. 5. Bothriocephalus Latus, p. 90; 148.

III. Nematoda, or Round Worms. . . . . { 1. Ascaris Lumbricoides, p. 90; 148. 2. Ascaris Mystax, p. 90. 3. Tricocephalus Dispar, p. 90; 148. 4. Trichina Spiralis, p. 91; 266. 5. Strongylus Bronchialis, p. 91. 6. Eustrongylus Gigas, p. 91. 7. Sclerostoma Duodenale, p. 91; 148. 8. Oxyuris Vermicularis, p. 91; 148. 9. Dracunculus Medinensis, p. 75; 91.

IV. Acanthotheca (not true Helminths) . . . . . { 1. Pentastoma Tænioides, p. 91. 2. Pentastoma Constrictum, p. 91.

V. Pseudelminths . . . . . { 1. Dactylius Aculeatus, p. 91. 2. Spiroptera Hominis, p. 91. 3. Diplosoma Crenatum, p. 91. 4. Gordius Aquaticus, p. 91.

EPIPHYTES (p. 94) :—

I. In Cutaneous Diseases { 1. Microsporon Furfur, p. 94; 261. 2. Microsporon Mentagrophytes, p. 94; 261. 3. Microsporon Audouini, p. 94; 261. 4. Tricophyton Tonsurans, p. 94; 211; 260. 5. Tricophyton Sporuloides, p. 94; 211. 6. Achorion Schönleinii, p. 94; 261.

II. In Stomach Diseases . { 1. Sarcina Ventriculi, p. 94; 108. 2. Cryptococcus Cerevisiæ, p. 94; 108.

III. In Aphthæ . . . . . { 1. Oidium Albicans, p. 13; 94. 2. Leptothrix Buccalis, p. 13; 94.

IV. In Fungus Foot of India. Chionyphe Carteri, p. 94; 169.

EPIZOA (p. 95) :—

I. On the Skin . . . .
1. Pediculus, or Louse, p. 95; 205.
2. Pulex Irritans, or Flea, p. 95.
3. Chigoe, or Jigger, p. 95.
4. Ticks, or Ixodes, p. 95.
5. Argades, p. 95.
6. Acanthia Lectularia, or Bug, p. 95.
7. Leptus Autumnalis, or Harvest Bug, p. 95.

II. In the Skin . . . .
1. Acarus Scabiei, or Itch Insect, p. 95; 236.
2. Acarus Folliculorum, or Pimple Mite, p. 95.

EYE DISEASES :—

I. Diseases of Eyelids
1. Ectropion, p. 83.
2. Entropion, p. 91.
3. Epiphora, p. 94.
4. Ophthalmia Tarsi, p. 181.
5. Ptosis, p. 219.
6. Trichiasis, p. 266.

II. Varieties of Sight .
1. Emmetropia, p. 85.
2. Myopia, p. 170.
3. Presbyopia, p. 217.
4. Asthenopia, p. 16.
5. Astigmatism, p. 18.
6. Colour-Blindness, p. 50.
7. Hypermetropia, p. 136.
8. Amblyopia, p. 4.
9. Diplopia, p. 4; 74.
10. Hemiopia, p. 4; 119.
11. Hemeralopia, p. 4; 118.
12. Nyctalopia, p. 4; 178.
13. Photophobia, p. 204.

III. Conjunctivitis . . .
1. Catarrhal Ophthalmia, p. 53.
2. Purulent Ophthalmia, p. 53.
3. Strumous Ophthalmia, p. 55.
4. Granular Conjunctiva, p. 55.

IV. Sclerotitis . . . . .
1. Rheumatic Ophthalmia, p. 238.
2. Catarrho-Rheumatic Ophthalmia, p. 238.

V. Corneitis . . . . .
1. Keratitis, p. 58.
2. Syphilitic Keratitis, p. 59.
3. Opacity of Cornea, p. 59.
4. Ulcers of Cornea, p. 59.
5. Conical Cornea, p. 59.
6. Arcus Senilis, p. 60.

VI. Diseases of Iris. . .
1. Iritis, p. 150.
2. Inflammation of Iris and Cornea, p. 151.
3. Mydriasis, p. 152.
4. Myosis, p. 152.

VII. Choroiditis, p. 48.
VIII. Retinitis, p. 230.
IX. Cataract, p. 36.
X. Muscæ Volitantes, p. 168.
XI. Glaucoma, p. 109.
XII. Amaurosis, p. 4.
XIII. Exophthalmos, or Proptosis Oculi, p. 98 ; 113 ; 217.

FEMALE ORGANS OF GENERATION (Diseases of):—

I. Vulval Pruritus, p. 289.

II. Vulval Tumours . .
1. Encysted Tumours, p. 289.
2. Fibrous and Fatty Tumours, p. 290.
3. Warty Growths, p. 290.
4. Hypertrophy of Labia, p. 290.
5. Abscess of Labia, p. 290.
6. Pudendal Hæmatocele, p. 290.

III. Inflammation of Vulva . . . . . .
1. Simple Vulvitis, p. 290.
2. Gangrenous Vulvitis, p. 291.
3. Follicular Inflammation, p. 291.
4. Erythema, p. 291.
5. Infantile Leucorrhœa, p. 292.

IV. Vulval Corroding Ulcer, p. 288.

V. Vulval Cancer, p. 288.

VI. Clitoritis, p. 48.

VII. Vascular Tumour of Urethra, p. 282.

VIII. Vaginal Diseases . .
1. Vaginal Occlusion, p. 279.
2. Vaginismus, p. 281.
3. Vaginitis, p. 281.
4. Vaginal Prolapsus, p. 280.
5. Vaginal Tumours, p. 280.

IX. Pelvic Cellulitis, p. 197.

X. Pelvic Hæmatocele, p. 198.

XI. Uterine Diseases. .
1. Amenorrhœa, p. 5.
2. Leucorrhœa, p. 157; 281.
3. Dysmenorrhœa, p. 79.
4. Menorrhagia, p. 166.
5. Uterine Hæmorrhage, p. 276.
6. Endometritis, p. 87.
7. Metritis, p. 166.
8. Ulceration, p. 278.
9. Cancer, p. 273.

XII. Uterine Tumours .
1. Fibroid Growths, p. 276.
2. Polypi, p. 277.
3. Cystic Growths, p. 277.

XIII. Uterine Displacements . . . . . .
1. Prolapsus and Procidentia, p. 274.
2. Retroflexion and Anteflexion, p. 275.
3. Retroversion and Anteversion, p. 275.
4. Inversion, p. 276.

XIV. Diseases of Ovaries and Oviducts . .
1. Ovaritis, p. 187.
2. Ovarian Tumours, p. 186.
3. Displacements of Ovary, p. 186.
4. Dropsy of Fallopian Tube, p. 99.

XV. Impotence and Sterility, p. 139.

XVI. Gonorrhœa, p. 111. Urethritis, p. 270.

XVII. Syphilis, p. 252.

FEVERS (p. 95 ; 99) :—

I. Continued Fevers .
1. Simple Continued Fever, p. 240.
2. Typhus, p. 269.
3. Typhoid Fever, p. 268.
4. Relapsing Fever, p. 226.

II. Intermittent Fevers
1. Intermittent Fever, or Ague, p. 145.
2. Brass-Founder's Ague, p. 22.

III. Remittent Fevers .
1. Remittent Fever, p. 227.
2. Yellow Fever, p. 293.

IV. Eruptive Fevers. .
1. Rubeola, p. 235.
2. Small-Pox, p. 241.
3. Cow-Pox, p. 62.
4. Chicken-Pox, p. 43.
5. Measles, p. 164.
6. Scarlet Fever, p. 236.
7. Dengue, p. 70.
8. Erysipelas, p. 96.
9. Miliaria, p. 167.
10. Plague, p. 208.

FORMULÆ (p. 295) :—

I. Aliments, p. 297.
II. Alteratives and Resolvents, p. 302.
III. Antacids, p. 310.
IV. Antiseptics, p. 312.
V. Antispasmodics, p. 314.
VI. Astringents, p. 316.
VII. Baths, p. 320.
VIII. Cathartics and Anthelmintics, p. 323.
IX. Caustics and Counter-Irritants, p. 332.
X. Diaphoretics and Diuretics, p. 334.
XI. Emetics and Expectorants, p. 337.
XII. Gargles and Inhalations, p. 339.
XIII. Lotions, Liniments, Collyria, and Ointments, p. 341.
XIV. Narcotics and Sedatives, p. 348.
XV. Refrigerants and Salines, p. 355.
XVI. Stimulants, p. 357.
XVII. Tonics, p. 358.
XVIII. Uterine Therapeutics, p. 369.
XIX. Climates for Invalids, p. 374.
XX. Mineral Waters, p. 404.

FURUNCULAR INFLAMMATIONS:—

I. Boils, p. 21.
II. Carbuncles, p. 29.
III. Malignant Vesicle, p. 159.
IV. Styes, p. 250.

GOUT AND RHEUMATISM:—

I. Gout, p. 111.
II. Acute Rheumatism, p. 231.
III. Chronic Rheumatism, p. 232.
IV. Rheumatoid Arthritis, p. 233.
V. Lumbago, p. 158; 232.
VI. Pleurodynia, p. 210; 232.
VII. Sciatica, p. 176; 232; 237.
VIII. Rheumatic Ophthalmia, p. 238.
IX. Gouty and Rheumatic Deafness, p. 64.

HÆMORRHAGE (p. 115):—

I. Hæmorrhagic Diathesis, p. 116.
II. Epistaxis, p. 94.
III. Cerebral Apoplexy, p. 13.
IV. Cerebral Hæmorrhage, p. 14; 38.
V. Cephalohæmatoma, p. 37.
VI. Otorrhagia, p. 186.
VII. Hæmatoma Auris, p. 113.
VIII. Spinal Hæmorrhage, p. 245.
IX. Stomatorrhagia, p. 249.
X. Hæmoptysis, p. 115.
XI. Pulmonary Apoplexy, p. 220.
XII. Hæmatemesis, p. 113; 115.
XIII. Melæna, p. 166.
XIV. Apoplexy of Liver, p. 121.
XV. Hæmaturia, p. 114.
XVI. Menorrhagia, p. 166.
XVII. Uterine Hæmorrhage, p. 276.
XVIII. Pudendal Hæmatocele, p. 290.
XIX. Pelvic Hæmatocele, p. 198.
XX. Scrotal Hæmatocele, p. 132.

HEART DISEASES :—

I. Pericarditis, p. 199. Hydro-Pericardium, p. 135; 199.
II. Endocarditis, p. 86.
III. Myocarditis, p. 170.
IV. Valvular Diseases, p. 33.
V. Cardiac Hypertrophy, p. 32.
VI. Cardiac Dilatation, p. 31.
VII. Cardiac Atrophy
1. Simple Atrophy, p. 30.
2. Fatty Degeneration, p. 30.
3. Fatty Growth, p. 31.
VIII. Cyanosis, p. 63.
IX. Cardiac Rupture, p. 33.
X. Angina Pectoris, p. 8.
XI. Cardiac Aneurism, p. 30.
XII. Cardiac Cancer, p. 31.
XIII. Cardiac Functional Derangement, p. 31.
XIV. Intra-Thoracic Tumours, p. 149.

HERNIA (p. 128) :—

I. General Varieties, p. 128
1. Reducible.
2. Irreducible.
3. Incarcerated.
4. Strangulated.

II. Special Herniæ, p. 129
1. Oblique Inguinal.
2. Direct Inguinal.
3. Congenital.
4. Femoral.
5. Umbilical.
6. Ventral.
7. Obturator.
8. Ischiatic.
9. Perineal.
10. Vaginal.
11. Labial.
12. Diaphragmatic.

INFLAMMATION (p. 141) :—

I. Nervous System
1. Cerebral Meningitis, p. 38.
2. Cerebritis, p. 39.
3. Encephalitis, p. 39.
4. Spinal Meningitis, p. 246.
5. Cerebro-Spinal Meningitis, p. 246.
6. Myelitis, p. 169.
7. Neuritis, p. 177.

INFLAMMATION—(*continued*) :—

- II. Organs of Respiration . . . . . 1. Laryngitis, p. 154. 2. Tracheitis, or Croup, p. 62. 3. Bronchitis, p. 22. 4. Pleurisy, p. 208. 5. Pneumonia, p. 211. 6. Pleuro-Pneumonia, p. 210.
- III. Organs of Circulation . . . . . 1. Pericarditis, p. 199. 2. Endocarditis, p. 86. 3. Myocarditis, p. 170. 4. Aortitis, p. 11. 5. Phlebitis, p. 203.
- IV. Organs of Digestion . . . . . 1. Glossitis, p. 261. 2. Stomatitis, p. 248. 3. Parotitis, p. 196. 4. Tonsillitis, p. 263. 5. Pharyngitis, p. 202. 6. Œsophagitis, p. 180. 7. Gastritis, p. 106. 8. Duodenitis, p. 76. 9. Enteritis, p. 88. 10. Typhlitis, or Cæcitis, p. 27. 11. Perityphlitis, p. 202. 12. Colitis (Dysentery) p. 77. 13. Rectitis, p. 226. 14. Hepatitis, p. 124. 15. Pancreatitis, p. 189. 16. Splenitis, p. 248.
- V. Urinary Organs . . . 1. Nephritis, p. 173. 2. Acute Desquamative Nephritis, p. 174. 3. Chronic Desquamative Nephritis, p. 175. 4. Acute Cystitis, p. 283. 5. Chronic Cystitis, p. 284. 6. Urethritis, p. 270.
- VI. Male Organs of Generation . . . 1. Balanitis, p. 18. 2. Prostatitis, p. 218. 3. Testitis, p. 257.
- VII. Female Organs of Generation . . . 1. Vulvitis, p. 290. 2. Clitoritis, p. 48. 3. Vaginitis, p. 281. 4. Pelvic Cellulitis, p. 197. 5. Metritis, p. 166. 6. Endometritis, p. 87. 7. Ovaritis, p. 187.
- VIII. Eye . . . . . 1. Conjunctivitis, p. 53. 2. Sclerotitis, p. 238. 3. Corneitis, p. 58. 4. Choroiditis, p. 48. 5. Iritis, p. 150. 6. Retinitis, p. 230.
- IX. Bone . . . . . 1. Periostitis, p. 200. 2. Osteitis, p. 182. 3. Osteomyelitis, p. 182.
- X. Various Organs and Tissues . . . . . 1. Mammitis, p. 162. 2. Otitis, p. 183. 3. Peritonitis, p. 201. 4. Myositis, p. 171. 5. Angeioleucitis, p. 7. 6. Adenitis, p. 2. 7. Housemaid's Knee, p. 132. 8. Cellulitis Venenata, p. 37.

INTESTINAL DISEASES:—

I. Duodenal Disease .
1. Duodenitis, p. 76.
2. Duodenal Dyspepsia, p. 77.
3. Perforating Ulcer, p. 77.
4. Cancer, p. 77.

II. Enteritis, p. 88.

III. Cæcitis, p. 27. Perityphlitis, p. 202.

IV. Dysentery, p. 77.

V. Diarrhœa, p. 72. Melæna, p. 166.

VI. Cholera, p. 45.

VII. Flatulence, p. 101 ; 268.

VIII. Colic . . . . . .
1. Simple Colic, p. 50.
2. Copper Colic, p. 58.
3. Lead Colic, p. 155.

IX. Constipation, p. 55.

X. Intestinal Obstruction, p. 147.

XI. Intussusception, p. 149.

XII. Intestinal Worms, p. 148.

XIII. Intestinal Perforation, p. 148.

XIV. Intestinal Concretions, p. 146.

XV. Diseases of Rectum
1. Rectitis, p. 226.
2. Foreign Bodies in Rectum, p. 103.
3. Rectal Ulcers, p. 225.
4. Rectal Stricture, p. 225.
5. Rectal Prolapsus, p. 224.
6. Rectal Polypus, p. 224.
7. Pruritus Ani, p. 219.
8. Rectal Neuralgia, p. 223.
9. Fistula in Ano, p. 100.
10. Hæmorrhoids, p. 116.
11. Cancer, p. 223.

XVI. Hernia, p. 128.

KIDNEY DISEASES:—

I. Inflammation . . .
1. Nephritis, p. 173.
2. Acute Desquamative Nephritis, p. 174.
3. Chronic Desquamative Nephritis, p. 175.

II. Renal Degeneration
1. Fatty Degeneration, p. 228.
2. Amyloid Degeneration, p. 229.
3. Cystic Degeneration, p. 229.

III. Hydronephrosis, p. 134.

IV. Renal Cancer, p. 227.

V. Renal Tubercle, p. 230.

VI. Renal Parasites, p. 230.

VII. Diabetes Mellitus, p. 70.

VIII. Diuresis, p. 74. Polyuria, p. 217.

IX. Chylous Urine, p. 48.

KIDNEY DISEASES—(*continued*):—

X. Hæmaturia, p. 114.
XI. Urinary Deposits, p. 271.
XII. Urinary Calculi, p. 271.
XIII. Enuresis, p. 92.
XIV. Uræmia, p. 270.
XV. Supra-Renal Capsular Disease, p. 250.

LARYNGEAL AND TRACHEAL DISEASES:—

I. Aphonia, p. 12.
II. Laryngitis . . . . . 1. Acute Laryngitis, p. 154. 2. Œdema of Glottis, p. 155. 3. Chronic Laryngitis, p. 155.
III. Laryngismus Stridulus, p. 154.
IV. Dysphonia Clericorum, p. 81.
V. Diphtheria, p. 72.
VI. Croup, p. 62.
VII. Foreign Bodies in Air-Passages, p. 101.
VIII. Hæmoptysis, p. 115.

LIVER DISEASES:—

I. Hepatic Congestion 1. Passive Congestion, p. 120. 2. Active Congestion, p. 121. 3. Apoplexy of Liver, p. 121.
II. Hepatic Hypertrophy, p. 122.
III. Inflammation . . . 1. Hepatitis, p. 124. 2. Cirrhosis, p. 125. 3. Syphilitic Hepatitis, p. 126. 4. Inflammation of Bloodvessels, p. 126. 5. Of Biliary Ducts and Gall-Bladder, p. 126.
IV. Hepatic Atrophy . 1. Acute or Yellow Atrophy, p. 119. 2. Chronic Atrophy, p. 120.
V. Hepatic Degeneration . . . . . 1. Fatty Degeneration, p. 121. 2. Amyloid Degeneration, p. 122. 3. Pigment Liver, p. 122.
VI. Hepatic Tumours . 1. Cystic, p. 123. 2. Cavernous, p. 123. 3. Tubercular, p. 123. 4. Hydatid, p. 123.
VII. Hepatic Cancer, p. 120.
VIII. Gall-Stones, p. 103.
IX. Jaundice, p. 152.
X. Acholia, p. 1.

LUNG DISEASES:—

I. Catarrh, p. 37. Cough, p. 60.

II. Influenza, p. 141.

III. Bronchitis . . . . .
1. Acute Bronchitis, p. 22.
2. Chronic Bronchitis, p. 23.
3. Catarrhus Senilis, p. 24.
4. Plastic Bronchitis, p. 24.
5. Mechanical Bronchitis, p. 24.
6. Secondary Bronchitis, p. 24.
7. Hay-Asthma, p. 24.

IV. Hooping-Cough, p. 131.

V. Asthma, p. 16.

VI. Emphysema . . . .
1. Vesicular, p. 86.
2. Interlobular, p. 86.

VII. Pulmonary Condensation . . . . . .
1. From Various Causes, p. 220.
2. Pulmonary Apoplexy, p. 220.
3. Cirrhosis of Lung, p. 48; 220.
4. Acquired Pulmonary Collapse, p. 221.
5. Atelectasis, p. 18; 221.

VIII. Pleurisy, p. 208. Pleuro-Pneumonia, p. 210.

IX. Hydrothorax, p. 135; 209.

X. Pneumothorax, p. 212.

XI. Empyema, p. 86; 209.

XII. Pneumonia, p. 211.

XIII. Pulmonary Gangrene, p. 221.

XIV. Phthisis, p. 205.

XV. Pulmonary Cancer, p. 220.

XVI. Intra-Thoracic Tumours, p. 149.

XVII. Foreign Bodies in Air-passages, p. 101.

XVIII. Dyspnœa, p. 82. Orthopnœa, p. 182.

XIX. Hæmoptysis, p. 115.

LYMPHATIC DISEASES:—

I. Angeioleucitis, p. 7.

II. Adenitis, p. 2; 25.

III. Cellulitis Venenata, p. 37.

IV. Tabes Mesenterica, p. 255.

MALE ORGANS OF GENERATION (Diseases of):—

I. Diseases of Penis
1. Balanitis, p. 18.
2. Hypospadias and Epispadias, p. 137.
3. Phimosis, p. 202.
4. Paraphimosis, p. 196.
5. Priapism, p. 217.
6. Prostatitis, p. 218.
7. Prostatic Enlargement, p. 218.
8. Cancer, p. 199.

II. Diseases of Testicle
1. Acute Testitis, p. 257.
2. Chronic Testitis, p. 258.
3. Abscess and Fungus, p. 258.
4. Scrofula, p. 258.
5. Neuralgia, p. 256.
6. Tumours, p. 257.
7. Varicocele, p. 282.
8. Hydrocele and Hæmatocele, p. 132.

III. Diseases of Scrotum
1. Acute Œdema, p. 239.
2. Elephantiasis, p. 239.
3. Chimney-Sweeper's Cancer, p. 44.

IV. Impotence and Sterility, p. 139.
V. Gonorrhœa, p. 110. Urethritis, p. 270.
VI. Spermatorrhœa, p. 243.
VII. Syphilis, p. 252. Bubo, p. 25.
VIII. Syphilization, p. 254.
IX. Syphiliphobia, p. 252.

MELANOSIS:—

I. True Melanosis, p. 165.
II. Spurious Melanosis, p. 165.

MISCELLANEA:—

I. Expectation of Life, p. 98.
II. Death Causes, p. 65.
III. Weight of Body, p. 292.
IV. Temperature of Body, p. 256.
V. Spirometry, p. 247.
VI. Suspended Animation, p. 250.
VII. Bites of Venomous Reptiles, p. 20.
VIII. Bites of Rabid Animals, p. 20.
IX. Obesity, p. 178.
X. Dyspnœa, p. 82. Orthopnœa, p. 183.
XI. Sleeplessness, p. 240.
XII. Cough, p. 60.

MISCELLANEA—(*continued*):—

XIII. Hiccough, p. 130.
XIV. Dysphagia, p. 81.
XV. Vomiting and Retching, p. 286.
XVI. Blows and Bruises, p. 21.
XVII. Burns and Scalds, p. 26.
XVIII. Anorexia, p. 8.
XIX. Headache, p. 117. Vertigo, p. 283.

MOUTH DISEASES:—

I. Inflammation &c.
  1. Follicular Stomatitis, p. 248.
  2. Ulcerative Stomatitis, p. 248.
  3. Cancrum Oris, p. 249.
  4. Stomatorrhagia, p. 249.
II. Toothache, p. 264.
III. Aphthæ of Mouth, p. 13.
IV. Parotitis, p. 196.
V. Tonsillitis, p. 263.
VI. Elongation of Uvula, p. 202.

MUSCULAR DISEASES:—

I. Myalgia, p. 169.
II. Pleurodynia, p. 210.
III. Myositis, p. 171.
IV. Phantom, or Muscular Tumours, p. 168.
V. Contusions of Abdominal Parietes, p. 56.
VI. Abscess of Abdominal Parietes, p. 1.
VII. Lumbar, Psoas, and Iliac Abscess, p. 158.

NERVOUS DISEASES:—

I. Hysteria, p. 137. Bed Case, p. 19.
II. Catalepsy, p. 35. Ecstasy, p. 83.
III. Chorea, p. 47.
IV. Tetanus, p. 259. Trismus Nascentium, p. 267.
V. Epilepsy, p. 92. Convulsions, p. 57.
VI. Sleeplessness, p. 240.
VII. Hypochondriasis, p. 136. Syphiliphobia, p. 252.

NERVOUS DISEASES—(*continued*) :—

VIII. Inflammation &c. . { 1. Neuritis, p. 177. 2. Neuroma, p. 177.

IX. Neuralgia . . . . . { 1. Tic Douloureux, p. 176. 2. Hemicrania, p. 118; 119; 176. 3. Sciatica, p. 176; 237.

X. Hooping-Cough, p. 131.

XI. Asthma, p. 16.

XII. Laryngismus Stridulus, p. 154.

XIII. Nostalgia, p. 177.

XIV. Headache, p. 117.

NEURALGIA (p. 175) :—

I. Neuralgic Toothache, p. 265.

II. Tic Douloureux, p. 176; 260.

III. Hemicrania, p. 118; 119; 176.

IV. Sciatica, p. 176; 237.

V. Mastodynia, p. 163.

VI. Intercostal Neuralgia, p. 145.

VII. Neuralgic Dysmenorrhœa, p. 79.

VIII. Neuralgia of Testicle, p. 256.

IX. Neuralgia of Rectum, p. 223.

X. Spasm of Bladder, p. 285.

NOSE DISEASES:—

I. Lipoma, p. 172.

II. Polypus, p. 173.

III. Ozæna, p. 188.

IV. Epistaxis, p. 94.

V. Rhinolithes, p. 234.

VI. Rhinorrhœa, p. 234.

PANCREATIC AND SPLENIC DISEASE:—

I. Pancreatitis, p. 189.

II. Pancreatic Tumours, Cancer &c. p. 189.

III. Pancreatic Calculi, p. 189.

IV. Splenitis &c. p. 248.

V. Splenic Enlargement, p. 248.

PHARYNGEAL & ŒSOPHAGEAL DISEASES:—

I. Dysphagia, p. 81.

II. Pharyngitis . . . .
- 1. Erysipelatous Inflammation, p. 202.
- 2. Syphilitic Ulceration, p. 202.
- 3. Elongation of Uvula, p. 202.

III. Retro-Pharyngeal Abscess, p. 231.

IV. Œsophagitis, p. 180.

V. Œsophageal Cancer, p. 179.

VI. Œsophageal Stricture, p. 179.

VII. Œsophagism, p. 180.

POISONS (p. 212):—

I.—Irritants, p. 212.

1. Acids and their Bases.
   - Mineral Acids.
     - Sulphuric.
     - Nitric.
     - Hydrochloric.
     - Mixed Acids.
   - Vegetable Acids.
     - Acetic.
     - Tartaric.
     - Oxalic.
   - Phosphorus.
2. Alkalies and Alkaline Salts.
   - Ammonia, Potash, Soda, and their carbonates.
   - Nitrate, Sulphate, and Bitartrate of Potash.
   - Lime, Baryta and its salts.
3. Metallic Compounds.
   - Arsenic.
   - Mercury.
   - Lead.
   - Copper.
   - Antimonial compounds.
   - Zinc, Silver, Tin, Bismuth, Chrome, Iron.
4. Vegetable and Animal Irritants.
5. Irritant Gases.

II.—Narcotics, p. 213.

1. Opium.
2. Hydrocyanic Acid.
3. Nitro-Benzole, Aniline.
4. Chloroform, Æther, Amylene.
5. Alcohol.
6. Henbane, Lettuce-opium, Nightshade.
7. Narcotic Gases.

III.—Narcotico-Irritants, p. 213.

1. Nux vomica, Brucia, Strychnia.
2. Belladonna, Aconite, Stramonium, Colchicum, Hellebore.
3. Digitalis, Tobacco, Lobelia Inflata, Camphor.
4. Hemlock, Cocculus Indicus, Darnel-seeds.
5. Laburnum, Yew.
6. Ergot of Rye, Poisonous Fungi.

SKIN APPENDAGES (Diseases of) :—

I. Alopecia, or Baldness, p. 3.
II. Trichiasis Ciliorum, p. 266.
III. Onyxis, p. 181.
IV. Onychia, p. 181.
V. Verrucæ, or Warts, p. 283.
VI. Phthiriasis, or Lousiness, p. 204.
VII. Trichiniasis, p. 266.
VIII. Dracontiasis, p. 75.
IX. Mycetoma, p. 169.

SKIN DISEASES :—

Order I. Exanthemata
1. Erythema, p. 97.
2. Roseola, p. 235.
3. Urticaria, p. 279.

Order II. Vesiculæ
1. Sudamina, p. 250.
2. Miliaria, p. 167.
3. Herpes, p. 130; 294.
4. Pemphigus, p. 199.
5. Rupia, p. 235.

Order III. Pustulæ
1. Ecthyma, p. 83.
2. Impetigo, p. 138.

Order IV. Parasitici
1. Tinea Tonsurans, p. 260.
2. Tinea Favosa, p. 260.
3. Tinea Decalvans, p. 261.
4. Tinea Sycosis, p. 261.
5. Tinea Versicolor, p. 261.
6. Plica Polonica, p. 210.
7. Scabies, p. 236.

Order V. Papulæ
1. Strophulus, p. 249.
2. Lichen, p. 157.
3. Prurigo, p. 218.

Order VI. Squamæ
1. Lepra, p. 156.
2. Psoriasis, p. 219.
3. Pityriasis, p. 208.
4. Eczema, p. 83.
5. Ichthyosis, p. 138.

Order VII. Tubercula
1. Barbadoes Leg, p. 19.
2. Molluscum, p. 168.
3. Acne, p. 2.
4. Lupus, p. 158.
5. Frambœsia, p. 103.
6. Keloid, p. 153.
7. Vitiligo, p. 286.

SPINAL CORD DISEASES:—

I. Epilepsy, p. 92.

II. Chorea, p. 47.

III. Inflammation &c.
1. Spinal Meningitis, p. 246.
2. Cerebro-Spinal Meningitis, p. 246.
3. Myelitis, p. 169.
4. Spinal Hæmorrhage, p. 245.
5. Tumours, p. 247.
6. Hydrorachis, p. 135; 243.
7. Concussion, p. 52.
8. Spinal Irritation, p. 246.

IV. Paralysis
1. General Paralysis, p. 190.
2. Hemiplegia, p. 190.
3. Paraplegia, p. 191.
4. Local Paralysis, p. 191.
5. Reflex Paralysis, p. 226.
6. Progressive Locomotor Ataxy, p. 193.
7. Hysterical and Rheumatic Palsy, p. 193.
8. Progressive Muscular Atrophy, p. 194.
9. Mercurial Palsy, p. 195.
10. Lead Palsy, p. 195.
11. Paralysis Agitans, p. 195.

V. Catalepsy, p. 35. Ecstasy, p. 83.

VI. Tetanus.
1. Trismus, or Locked-jaw, p. 259.
2. Opisthotonos, p. 259.
3. Emprosthotonos, p. 259.
4. Pleurosthotonos, p. 259.
5. Trismus Nascentium, p. 267.

VII. Convulsions, p. 57. Eclampsia Nutans, p. 82.

VIII. Spina Bifida, p. 243.

STOMACH DISEASES:—

I. Dyspepsia
1. Simple Dyspepsia, p. 80.
2. Gastralgia, or Heartburn, p. 105.
3. Gastrodynia, or Stomach-cramp, p. 108.
4. Pyrosis, or Water-brash, p. 222.
5. Slow Digestion, p. 80.
6. Bulimic Dyspepsia, p. 26.

II. Gastritis
1. Acute Gastritis, p. 106.
2. Chronic Gastritis, p. 106.
3. Gastric Catarrh, p. 107.
4. Induration of Pylorus, p. 107.
5. Dilatation of Stomach, p. 108.

III. Gastric Ulcer, p. 105.

IV. Gastric Cancer, p. 105.

V. Gastro-cutaneous Fistula, p. 108.

VI. Gastro-colic Fistula, p. 108.

VII. Hæmatemesis, p. 113. Vomiting and Retching, p. 286.

VIII. Melæna, p. 166.

THYROID GLAND DISEASES:—

I. Bronchocele, p. 25.
II. Cretinism, p. 62.
III. Exophthalmic Goitre, p. 25 ; 113.

TONGUE DISEASES:—

I. Glossitis, p. 261.
II. Ulcers, p. 262.
III. Cancer, p. 262.
IV. Cracked Tongue, Tumours &c. p. 263.
V. Aphthæ, p. 13.

TOOTHACHE:—

I. Caries, p. 264.
II. Inflammation of Pulp, p. 265.
III. Necrosis of Fangs, p. 265.
IV. Neuralgia, p. 265.

TUBERCULAR AND STRUMOUS DISEASES:—

I. Tuberculosis, p. 267. Scrofula, p. 239.
II. Phthisis, p. 205. Phthisis Laryngea, p. 155.
III. Hydrocephalus, p. 133.
IV. Tabes Mesenterica, p. 255.
V. Tubercular Peritonitis, p. 201.
VI. Tubercular Meningitis, p. 42.
VII. Tuberculosis of Liver, p. 123.
VIII. Renal Tubercle, p. 230.
IX. Strumous Abscesses, p. 239.
X. Strumous Adenitis, p. 2 ; 239.
XI. Strumous Ulcers, p. 239.
XII. Strumous Ophthalmia, p. 55.
XIII. Scrofulous Testicle, p. 258.
XIV. Rickets, p. 234.
XV. Angular Curvature of Spine, p. 245.

TUMOURS (Benign):—

I. Polypi . . . . . { 1. Nasal. p. 173. 2. Rectal, p. 224. 3. Vaginal, p. 280. 4. Uterine, p. 277.

II. Cerebral Tumours, p. 41.
III. Intra-Thoracic Tumours, p. 149.
IV. Spinal Cord Tumours, p. 247.
V. Hepatic Tumours, p. 123.
VI. Tumours of Testicle, p. 257.
VII. Mammary Tumours, p. 160.
VIII. Muscular, or Phantom Tumours, p. 168.
IX. Renal Tumours, p. 134; 227; 230.
X. Vesical Tumours, p. 286.
XI. Vulval Tumours, p. 289.
XII. Vascular Tumours of Urethra, p. 282.
XIII. Vaginal Tumours, p. 280.
XIV. Ovarian Tumours, p. 186.
XV. Uterine Tumours, p. 276.
XVI. Hæmorrhoids, p. 116.

ULCERS:—

I. Cancerous Ulceration, p. 28.
II. Rodent Ulcer, p. 234.
III. Scrofulous Ulcers, p. 239.
IV. Syphilitic Ulcers, p. 252.
V. Lupus, p. 158.
VI. Typhoid Ulcers, p. 268.
VII. Varioloid Ulcers, p. 241.
VIII. Dysenteric Ulcers, p. 77.
IX. Ulcers of Cornea, p. 59.
X. Ulcers of Tongue, p. 262.
XI. Gastric Ulcer, p. 105.
XII. Ulcers of Duodenum, p. 77.
XIII. Ulcers of Rectum, p. 225.
XIV. Vulval Corroding Ulcer, p. 288.
XV. Ulceration of Cervix Uteri, p. 278.
XVI. Chilblains, p. 43.
XVII. Chapped Hands, p. 43
XVIII. Onychia, p. 181.

VENEREAL DISEASES (p. 283):—

I. Balanitis, p. 18.
II. Vulvitis, p. 290.
III. Gonorrhœa . . . . . { 1. Gonorrhœa in Male, p. 110. 2. Chronic Gonorrhœa, or Gleet, p. 111. 3. Gonorrhœa in Female, p. 111.
IV. Syphilis . . . . . { 1. Primary Syphilis, p. 252. 2. Constitutional Syphilis, p. 253. 3. Infantile Syphilis, p. 254.
V. Bubo, p. 25.
VI. Syphiliphobia, p. 252.
VII. Syphilization, p. 254.
VIII. Syphilitic Keratitis, p. 59.
IX. Syphilitic Iritis, p. 151.
X. Gonorrhœal Ophthalmia, p. 54.
XI. Syphilitic Tumours of Brain, p. 41.
XII. Syphilitic Laryngitis, p. 154.
XIII. Syphilitic Bronchitis, p. 24.
XIV. Syphilitic Ulceration of Fauces, p. 202.
XV. Syphilitic Affections of Tongue, p. 262 ; 263.
XVI. Syphilitic Hepatitis, p. 126.
XVII. Syphilitic Sarcocele, p. 258.
XVIII. Syphilitic Ulceration of Labia Uteri, p. 278.
XIX. Syphilitic Lepra, p. 156.
XX. Syphilitic Rupia, p. 235.

AN

INDEX OF DISEASES.

ABSCESS OF ABDOMINAL WALLS.—From *Abscedo*, to form an abscess: *Abdomen*, the belly.—May result from external violence; furuncular inflammation, and erysipelas; or from extension of disease in other parts. Many examples of latter:—Inflammation and suppuration of vermiform appendix of cæcum, the pus working its way to surface somewhere about right inguinal region.—Suppurative inflammatory action apt to occur in areolar tissue of pelvis; in either ovary, especially in delicate and strumous women: abscess afterwards points in one of groins, in hypogastric region, or in vagina, bowel, &c.—Inflammation and suppuration of adipose and areolar tissues around one of kidneys (perinephritic abscess) may occur from blows or falls upon back, or from derangement of general health. In favourable cases, abscess points in one loin: occasionally pus burrows amongst dorsal muscles, being ultimately discharged into ureter, or into cavity of peritoneum.—A circumscribed abscess may form in peritoneum, from partial or general peritonitis: the pus, confined by adhesions, either approaches surface at some part of abdominal wall, or bursts into sac of peritoneum, or into bowel, &c.—In all forms, when abscess points, it is to be carefully opened. Strength to be supported by ammonia and bark, or quinine and steel: animal food, milk, cod liver oil, malt liquors.—See *Contusions of Abdominal Walls; Ovaritis; Pelvic Cellulitis*, &c.

ACHOLIA.—From 'A, privative; χολή, bile. Synon. *Absence of Bile.*—Arrest of the functions of the liver; so that matters from which bile is formed accumulate in the blood, producing toxæmia.—It arises in certain diseases of liver,—such as acute atrophy, impermeability of the bile ducts, cirrhosis, extensive cancer, fatty degeneration, &c.

Symptoms. Abnormal states of nervous system. Excitement. Noisy delirium. Convulsions. Typhoid prostration. Coma. Hæmorrhage from stomach and bowels. Ecchymoses. Jaundice (in a few instances).

Treatment. Active purgatives. Croton oil, 168, 191. Podophyllin, 160. Benzoic acid, 49. Hydrochlorate of ammonia, 60. Nitro-hydrochloric acid, 378.—See *Hepatic Atrophy.*

ACINESIA.—From ’A, priv.; κίνησις, motion. Synon. *Immobilitas; Eremia.*—Paralysis of motion.—See *Paralysis.*

ACNE.—Perhaps a corruption of ’Ακμαὶ, pimples on the face at the age of puberty; or from ’A, priv., and κνέω, to itch, because there is an absence of irritation. Synon. *Gutta Rosacea; Copper Nose; Stonepock.*—A chronic tubercular skin affection; characterised by small isolated pustules, with deep red bases. These pustules, after suppurating and bursting, leave behind them minute and hard red tumours, the seat of which appears to be the sebaceous follicles of skin.

Varieties. Three kinds,—*acne simplex, acne indurata,* and *acne rosacea:* characteristic distinctions indicated by their names. Acne simplex and acne indurata, most common about puberty; appear on forehead or sides of cheeks; are very protracted and frequently leave indelible cicatrices. Acne rosacea attacks the nose: often connected with stomach or liver disease: mostly seen in persons of advanced years, especially if they have been *bons vivants,* &c.

Treatment. Attention to digestive and uterine functions. Arsenic, 52. Creasote. Corrosive sublimate. Green iodide of mercury. Nitro-hydrochloric acid. Solution of potash. Cod liver oil.—Warm bathing. Iodide of sulphur ointment. Calomel ointment. Red iodide of mercury ointment.

ADDISON’S DISEASE.—Applied to a peculiar degeneration of the supra-renal capsules. According to Addison the prominent symptoms were discoloration of the skin and incurable anæmia. It is now said that the disease may exist without the skin becoming of a dingy or smoky hue.—See *Supra-Renal Capsular Disease.*

ADENITIS. — From ’Αδήν, a gland; terminal *-itis.* Synon. *Phlegmasia Glandulosa.*—Inflammation of the lymphatic glands may accompany disease of lymphatic vessels, or it occurs independently. Simple adenitis common after eruptive fevers. Tubercular adenitis very frequently met with in strumous subjects.

Symptoms. *Acute form:*—Feeling of malaise: slight chills: symptomatic fever. One or more glands become swollen, hot, hard, tender, painful. As tumefaction increases, skin over gland becomes red or livid. If convoluted tubes get obstructed, surrounding tissues rendered œdematous. Unless resolution occur, or acute stage subsides into chronic, suppuration takes place: abscess forms in interior of gland, or in surrounding areolar tissue.

Chronic variety:—Induration with persistent enlargement. Pain and heat slight. Skin retains its natural colour. Areolar tissue unaffected, so that gland remains moveable.

Strumous adenitis:—Usually chronic. Glands of neck, and those about base and angle of lower jaw, more frequently affected than any others. Subjects of this form are especially young children, though it is not a rare affection of strumous adults. Rarely any premonitory symptoms: first indication of the disease an indolent swelling of one or

more glands. If mischief increase, and especially if there be a tendency to suppuration, system suffers considerably: the already weak patient becomes irritable and restless, tongue gets furred, pulse quick and feeble, bowels costive, appetite fails, urine scanty and loaded with urates. Where general health is very bad, inflamed glands rapidly undergo disorganization; surrounding areolar tissue and skin get involved; extensive indolent ulcers result. When lymphatic glands of the mesentery are affected with strumous inflammation, a special form of disease is set up (Tabes Mesenterica).—For Syphilitic adenitis, see *Bubo*. Malignant adenitis, see *Cancer*.

Treatment. Carbonate of ammonia, 361. Chlorate of potash, 61. Ammonia and bark, 371. Quinine, 379. Quinine and steel, 380. Iodide of ammonium and bark, 38. Phosphate of iron, 405. Cod liver oil. Bromide of ammonium. Hydrochlorate of ammonia. Conium. Iodide of iron. Corrosive sublimate. Red iodide of mercury. Nourishing food: milk or cream. Sea air.—Water dressing. Iodine liniment. Diluted red iodide of mercury ointment. Iodide of lead ointment.

AGALACTIA. — From 'A, priv.; γάλα, milk. Synon. *Defectus Lactis; Oligogalactia.*—A diminution or complete absence of milk in nursing women. May be caused by general weakness of constitution; long-continued mental anxiety; exhausting disease; general plethora; acute or chronic disease of breasts or nipples; torpor of the mammæ; return of menstruation while suckling; approach of change of life.

Treatment. Unless cured, infant must be weaned to prevent its suffering from insufficient nourishment. See F. 427.

AGUE.—From the French *Aigu*, acute.—See *Intermittent Fever*.

ALCOHOLISM.—Alcohol is a poison which especially affects the nervous centres and liver. In a large dose it may destroy life immediately.—See *Delirium Tremens; Dipsomania; Poisons.*

ALOPECIA.—From 'Αλώπηξ, a fox,—because this animal is said to be liable to baldness. Synon. *Capillorum Defluvium; Lapsus Pilorum; Baldness; Calvities* (*Calvus*, bald).—Loss of hair may be temporary or permanent. Senile calvities usually takes place gradually: hair first becomes thin on crown of head, or on temples and forehead. A consequence of general loss of power: hair follicles participate in general weakening of nutritive functions. As follicular apparatus gets destroyed, the loss is generally irremediable.

In baldness occurring from debility, hæmorrhages, fevers, tuberculosis, syphilis, &c., the hair follicles remain entire, though inactive. Such cases generally curable.

Treatment. Nourishing food. Quinine and steel, 380. Cod liver oil. Scalp to be well-brushed: to be washed with cold water every morning. Hairs which are withered and split to be cut off close to scalp. Blisters. Ammonia and cantharides liniment, 287. Cantharides, castor oil, balsam of tolu &c., 287. Iodide of sulphur ointment,

310. Creasote and sulphur ointment, 311. Diluted iodine liniment. Diluted liniment of cantharides. Solution of ammonia. Liniment of turpentine and acetic acid. Balsam of Peru. Glycerine. Oil of rosemary (Oleum Rosmarini). Oil of marjoram (Oleum Origani).

AMAUROSIS.—From Ἀμαυρόω, to obscure. Synon. *Gutta serena.* —Partial or complete loss of vision from disease of brain, optic nerve, or retina. *Reflex* amaurosis due to remote causes,—irritation of teething, intestinal worms, ovarian or uterine disease, pregnancy, &c.

Symptoms. Patient's gait and expression of countenance attract attention. He walks with an air of uncertainty: his eyes, instead of being directed towards surrounding objects, have an unmeaning look—appear to be staring at nothing. In incomplete amaurosis, movements of iris sluggish and pupil dilated: in total blindness, pupil greatly dilated and iris immovable. When both eyes are affected, they are often unnaturally prominent and of an unhealthy colour: sclerotica frequently of a yellow hue, and covered with varicose vessels. —Ophthalmoscope reveals either,—blood extravasations from retina or choroid; or effusions of serum between retina and choroid; or irregular patches of black pigment scattered over retina, or yellowish spots (fatty degeneration); or optic nerve enlarged and irregular in outline, or surrounded by dusky halo, or with a crescentic patch at margin, or of an extreme whiteness (from degeneration) with chronic congestion of retina.

In commencement, failure of sight only experienced occasionally, as after long continued exertion of the eyes, reading by candlelight, &c. Sometimes it begins with indistinct vision—*amblyopia;* or objects appear double—*diplopia;* or only one-half of an object may be seen—*hemiopia.* At same time, frequently headache: ocular spectra become visible, patient complaining of muscæ volitantes.

Another form of partial blindness is that in which patient can only see in broad daylight, being blind during remainder of twenty-four hours. This complaint—*hemeralopia*—usually met with in those who have been exposed to strong glaring light of tropics. In *nyctalopia,* converse condition of hemeralopia, vision most acute during twilight.

Treatment. Difficult to lay down rules, since the causes are so various and opposite. In all instances, attention to general health. Each case then to be studied in all its bearings, especially with reference to the cause. When manifestly resulting from reflected irritation of worms, decayed teeth, &c., treatment obvious. When from inflammation,—strict quiet, warm baths, and low diet may be necessary: iodide of potassium; aconite; arnica; calomel?; bloodletting? When from vascular exhaustion or nervous debility,—preparations of iron, bark, good diet, sea air, and cold bathing. Strychnia, in some few examples, may stimulate a torpid optic nerve into action. Electricity acts in same way. Counter-irritants behind ears, or to nape of neck, or to shaven scalp. Where there is degeneration of optic nerve all remedies useless.

AMBLYOPIA.—From Ἀμβλύς, obtuse or dull; ὤψ, the eye. Synon. *Diminished Acuteness of Retinal Perception.*—Weakness of

sight from disease of brain, of optic nerve, or of retinal expansion of optic nerve.—See *Amaurosis.*

AMENORRHŒA.—From ’A, priv.; *μὴν*, a month; *ῥέω*, to flow.—An absence of the menstrual flow. Two varieties:—

1. Retention of Menses.—The catamenia are secreted, but do not escape externally. May arise from occlusion of vagina; from an imperforate os uteri. Menses accumulate in uterine cavity, forming in time an appreciable abdominal tumour. An outlet must be made for the menstrual accumulation by very cautiously incising or puncturing obstructing membrane. If no spot or dimple, marking site where os uteri should exist, can be found, it may be necessary to puncture uterus through rectum. All such operations attended with danger.

2. Suppression of Menses.—Most common form of amenorrhœa. The flux having been properly established, and having appeared regularly for a longer or shorter time, becomes prematurely arrested.

May occur suddenly, while discharge is on, from mental shock, setting in of acute disease, exposure to damp or cold. Takes place gradually; flow not returning at proper time, or becoming less and less for several periods and then entirely stopping. More constitutional disturbance in abrupt than gradual suppression. Latter most to be feared, as often indicative of more serious cause (severe anæmia, phthisis, albuminuria, &c.). Care necessary not to overlook pregnancy.

Treatment. *If there be plethora:*—Nitric acid, taraxacum, and senna, 147. Aloes, senna, and sulphate of magnesia, 150. Gamboge, aloes, and blue pill, 174. Podophyllin and aloes, 422. Nitre, spirit of juniper, and nitrous ether, 221. Iodide of potassium, 31. Aloes and savin pessary, 423. Enema of aloes. Bromide of potassium and cantharides, 422. Ergot of rye. Hot hip baths. Mustard pediluvia. Three or four leeches, repeated at intervals, to cervix uteri. Sinapisms to breasts. Turkish baths. Simple diet. Avoidance of stimulants. *If there be anæmia:*—Steel and aloes, 154, 393, 404. Steel and ammonia, 401. Quinine and steel, 380. Steel and pepsine, 394. Spirit of juniper and acid tartrate of potash, 219. Oil of juniper, 229. Iodide of iron, 32. Iodide of iron and nux vomica, 421. Oil of rue and ergot of rye, 422. Valerianate of steel, savin, and assafœtida, 421. Mustard pediluvia. Galvanism. Nourishing food. Brandy; gin; wine. Waters of Spa, 467. Ems, 486. Schwalbach, 488. Eger, 498.

AMNESIA.—From ’A, priv.; *μνῆσις*, remembrance. Synon. *Oblivio; Memoria Deleta.*—Forgetfulness, or loss of memory. A prominent symptom in certain cerebral diseases, &c.

AMYLOID DEGENERATION.—From *Amylum*, starch: *Degenero*, to degenerate.—The discovery in the animal kingdom of starch, or of a substance which possesses properties allied to those of amylaceous group in vegetable world, is full of interest. For some years it has been known that the liver, spleen, and kidneys, occasionally undergo a degeneration, which has been described as *Lardaceous, Waxy,*

Cholesterine, or *Albuminous Infiltration;* though until the researches of Virchow (1854–1859), practitioners were ignorant of the nature of this substance, as well as of its exact seat. In the human body there are to be found two allied, but not identical, substances :—

(1) Bodies which, in their chemical properties, are analogous to real vegetable starch, and in their form bear an extraordinary resemblance to vegetable starch-granules, inasmuch as they constitute more or less round or oval structures, formed by a succession of concentric layers. To this class belong the little corpora amylacea of nervous system; laminated bodies found in prostate of every adult man, and which, under certain circumstances, accumulate in large quantities, so as to form prostatic concretions; and rare forms of a similar kind which occur in certain conditions of lungs.

(2) In foregoing cases the starch-like matter lies *between* the elements of the tissues. Very different are those cases where there is a degeneration of the tissues themselves,—where their component parts become filled with a starch-like or amyloid substance. The change begins in the muscular fibre-cells of middle coat of small arteries: walls of vessels get gradually thickened, while their calibre diminishes. Then the morbid process involves surrounding anæmic parenchyma; extending until whole tissue in neighbourhood of arteries is altered. Several organs are generally invaded simultaneously, and rendered incapable of performing their functions. Patients gradually assume a cachectic, broken-down appearance; lose flesh and strength; dropsy often supervenes; urine gets albuminous if kidneys be affected; diarrhœa sets in when digestive tract is involved; and in spite of remedies death soon takes place.

When liver, spleen, or kidneys are organs affected, an unpractised eye may fail to detect alteration in structure unless there be an extreme amount of disease. When a liver is incised where amyloid degeneration is far advanced, a feeling is communicated like that experienced on passing a knife through wax: cut surface presents a semi-transparent appearance. The gland is increased in size; has some resemblance to a fatty liver, though its greater weight distinguishes it; a sense on handling is given like that received from a lump of wax; and if disease be very extensive, no trace of normal structure can be distinguished, though in an earlier stage the lobules are seen distinctly mapped out, owing to the matter being deposited within the lobule and in and among secreting cells.

Amyloid degeneration may exist alone, or in connexion with tuberculosis, disease of bones, and syphilis. Thus, in phthisis, this form of hepatic disease is probably more common than fatty liver; while sometimes amyloid and fatty degeneration occur together. So frequently has amyloid degeneration been found connected with caries or necrosis, that it was thought the osseous disease exercised some determining influence on production of amyloid bodies. Multiplied researches have proved, however, that amyloid degeneration is as frequently associated with phthisis and syphilis, as with bone disease. So it was considered that Bright's disease was often associated with amyloid degeneration, until the discovery that the former was

sometimes merely a symptom of the latter affecting kidneys.—See *Hepatic Degenerations; Renal Degenerations, &c.*

ANASARCA.—From 'Ανὰ, through; σάρξ, the flesh. Synon. *Hydrops Cellularis Totius Corporis; Hydrosarca; General Dropsy.*—The more or less general accumulation of serum in the meshes of the areolar tissue throughout the body.

Treatment. Compound jalap powder. Compound scammony powder. Elaterium, 157. Acid tartrate of potash, 228. Chimaphila umbellata, 221. Digitalis and squills, 219. Oil or spirit of juniper, 229. Colchicum. Tartarated iron.

Warm bath. Turkish Bath. Bloodletting. Dry cupping to loins. Acupuncture. Issues.—See *Œdema; Dropsy.*

ANÆMIA.—From 'A, priv.; αἷμα, blood. Synon. *Excæmia; Spanœmia; Hydræmia; Oligæmia.*—Deficiency or poverty of blood. The red globules, instead of existing in the proportion of 130 per 1000 parts of blood, as in health, are reduced to 80, 60, or even less. The liquor sanguinis is also poor in albumen, and may contain an excess of salts.

Symptoms. A pale, waxy, blanched appearance of integuments and mucous membranes. Feeble, rapid pulse. Anorexia. Aortic bellows-sound. Bruit de diable in jugular veins. Enlargement of thyroid. Proptosis oculi. Attacks of fainting. Palpitation and dyspnœa. Œdema, and dropsical effusions into pleura, pericardium, or peritoneum. Amenorrhœa. Occasionally, fatal syncope or coma.

Treatment. Iron, 380, 392, 393, 404, 412. Chemical food, 405. Bark, 371, 376. Binoxide of manganese. Aloetic aperients, with or without steel, 148, 393, 404. Pepsine, 394, 420. Peroxide of hydrogen increases the power of ferruginous tonics. Inhalation of oxygen. Alkaline hypophosphites. Nourishing food:—Milk; raw eggs; brandy and egg mixture, 17; restorative soup, raw meat, 2; essence of beef, 3; malt flour, &c. as in Liebig's food, 4; fish; poultry; roast beef and mutton; bitter ale; wine. Cod liver oil, 389. Sea air. Mineral waters of Spa, 467. Schwalbach, 488. Bruckenau, 493. Franzensbad, 498.—See *Chlorosis.*

ANÆSTHESIA.—From 'A, priv.; αἰσθάνομαι, to feel. Synon. *Analgesia.*—Paralysis of sensibility.—See *Paralysis.*

ANGEIOLEUCITIS.—From 'Αγγεῖον, a vessel; λευκὸς, white; terminal *-itis.* Synon. *Lymphangitis; Inflammatio Vasorum Lymphaticorum.*—Inflammation of the lymphatic vessels may result from external injury, or from absorption of some morbid matter—as in dissection wounds, unhealthy carbuncles, &c. Lymphatic glands usually involved.

Symptoms. Formation of bright red streaks; running upwards from wound in course of absorbents, to the glands in which the vessels merge. Streaks, tender to touch; the seat of stinging pains; hard, like little cords. Glands in connexion with affected vessels quickly become involved: get swollen and acutely painful. Whole limb

rendered puffy and tender. Great constitutional disturbance: chills or rigors; nausea and constipation, fever, restlessness, mental and bodily prostration.—May end in resolution; suppuration; chronic induration; fatal exhaustion, or ichorhæmia. Often complicated with erysipelas, or phlebitis.

Treatment. Sulphite of soda or magnesia, 48. Chlorate of potash, 61. Carbonate of ammonia, 361. Ammonia and bark, 371. Quinine, 379. Hydrochloric acid, 357. Purgative enemata, 188, 190. Essence of beef, 3. Restorative soup, 2. Eggs, cream, and extract of beef, 5. Brandy and egg mixture, 17. Wine. Ice. Acid tartrate of potash drink, 356. Hydrochloric acid and chlorate of potash drink, 358.—Fomentations. Linseed poultices. Extract of belladonna and water dressing. Bed to be placed in centre of well-ventilated room. Evacuation of pus by free incisions.

ANGINA PECTORIS.—From Ἄγχω, to strangle: *Pectus*, the breast. Synon. *Orthopnœa Cardiaca; Cardioneuralgia; Suffocative Breast-pang.*—A disease in which severe pain is felt about the chest, with a sense of strangulation and great anxiety.—Occurs most frequently in advanced life. More common in men than women. Has been found associated with fatty degeneration of heart; but more usually in connexion with diseased coronary arteries.

Symptoms. Paroxysms of intense pain about præcordial region; feeling of suffocation; fearful sense of impending death. Seizure rarely lasts more than one or two minutes. May come on at any time: if patient be walking he is obliged to stop immediately. During attack, pulse slow and feeble; breathing short and hurried; countenance pale and anxious; surface of body cold, perhaps covered with clammy sweat; consciousness unimpaired. As struggle passes off, patient regains his usual health; often appears quite well.—If death do not occur in an early seizure, it generally does so in some subsequent attack.

Treatment. *During paroxysm:*—Brandy or wine. Ether, chloroform, and ammonia, 85. Hydrocyanic acid, soda, and morphia, 70. Belladonna. Camphor. Assafœtida. Sinapisms. Turpentine stupes. Friction. Flying blisters.

During interval:—Animal food; milk or cream; light wines. Ammonia and bark, 371. Mineral acids and bark, 376. Quinine and steel, 380. Quinine and belladonna, 383. Steel and pepsine, 394. Phosphate of iron, 405. Zinc and nux vomica, 409. Valerianate of zinc and belladonna, 410. Sulphate of zinc and aconite, 413. Phosphate of zinc, 414. Arsenic. Sulphur. Quinine. Belladonna plaster over præcordia. An issue at nape of neck. Avoidance of stimulants, strong exercise, walking soon after meals, sexual intercourse, and mental excitement.

ANOREXIA.—From Ἀ, priv.; ὄρεξις, appetite. Synon. *Inappetentia.*—Loss of appetite is a common symptom in most diseases. When present without apparent cause, attempts must be made to give tone to digestive organs. Mineral acids, pepsine, rhubarb, aloes,

quinine, salicine, and bitter vegetable tinctures or infusions are the chief remedies.

AORTIC ANEURISM.—From *Ἀορτή*, the great artery: *Ἀνευρύνω*, to dilate.—*Varieties:—True* aneurism, in which all the coats of artery dilate and unite in forming walls of pouch; *false* aneurism, in which inner and middle arterial tunics being ruptured, walls are formed by cellular coat and contiguous parts; and *mixed* or *consecutive false* aneurism, in which the three coats having at first dilated, inner and middle ones subsequently rupture as distension increases. When the two inner tunics are ruptured, and blood forces its way between them and outer coat by a kind of false passage, so as to form a spreading diffused tumour, disease known as a *dissecting* aneurism. Lastly, *varicose* aneurisms are those where a communication has formed between aorta and either of the venæ cavæ, or between aorta and one of auricles, or between this vessel and right ventricle, or between aorta and pulmonary artery.

Aortic aneurism a disease of advanced life, rather than of youth: often results from ossific or calcareous deposits, or from atheromatous or fatty degeneration of coats of vessel, and consequently other vessels are not uncommonly found affected at same time. When tumour is small, its existence frequently goes undetected. Death generally results from hæmorrhage owing to rupture of sac; or sudden death may occur without any rupture (as from suffocation); or there may be gradual sinking from exhaustion caused by long-continued suffering, or from debility brought about by repeated escape of small quantities of blood, or from co-existent tubercular consumption.

1. Aneurism of Thoracic Aorta.—Chiefly met with in ascending portion, or in transverse part of arch.

Symptoms. In early stage obscure, partly because they resemble those caused by heart disease. When tumour is of some size and has been quickly developed, there is disturbed action of heart, with some modification of radial pulse; superficial veins of chest and neck are turgid; one or both upper extremities œdematous; dulness on percussion around portion of vessel from which aneurism springs; cough, wheezing, dyspnœa, hæmoptysis, difficulty in swallowing, and pain about the chest and back. Latter most constant and severe when erosion of bones of spine or sternum or ribs is going on.—Supposing aneurismal tumour becomes very large and pulsating, and rises out of chest, producing protrusion or absorption of sternum and ribs, then the diagnosis is easy. When the sac presses upon trachea, there are dyspnœa and cough; when on one or both recurrent laryngeal nerves, aphonia with troublesome cough, severe paroxysms of laryngeal suffocation, and pain coming on at intervals; when on œsophagus, dysphagia and symptoms of stricture; when on thoracic duct, inanition and engorgement of absorbent vessels and glands. Where an aneurism of ascending aorta is in immediate neighbourhood of the heart, patient suffers from angina pectoris; probably to be referred to compression of great plexuses of nerves ramifying on either side of

ascending aorta, and communicating freely with the cardiac ganglia and plexuses of the ventricles (Dr. W. T. Gairdner).

Amongst other symptoms,—contraction or dilatation of pupil on affected side; according as pressure is sufficient to paralyse, or only irritate, branches of sympathetic nerve.—Sometimes a bellows-sound can be detected. If the heart be compressed by tumour, so as to impede normal action of valves, a systolic or diastolic bruit will result. Pressure on aorta, or on pulmonary artery, may also produce a murmur. In false aneurism there is generally a murmur both with entrance and exit of blood into sac; or there may be one loud and prolonged and rasping bruit, from passage of blood over roughened inner surface of vessel. In true aneurism or mere dilatation of a part of the wall, murmurs seldom audible. Nevertheless, a small but free opening from canal of artery into aneurismal sac, and a roughened state of arterial tunics from degeneration or from atheromatous deposit, will give rise to a bruit. In both forms, when a murmur exists, a peculiar thrilling or purring tremor will be felt over sternum.

Death may occur from rupture externally, or into pericardium, into either pleural cavity, into trachea, or into a bronchial tube. Or patient may die from exhaustion consequent on long-continued suffering. Or there may be fatal destructive inflammation of lung, owing to compression of pulmonary vessels, or to pressure on pneumogastric nerve.—Very rarely, cure has resulted from solidification of fibrin.

Treatment. The same as for Aneurism of Abdominal Aorta.

2. Aneurism of Abdominal Aorta.—Often gives rise to acute pain in lumbar region, shooting into either hypochondrium and downwards into thighs and scrotum. Pain aggravated by constipation: often relieved by lying on face. A tumour discovered by careful examination: constant and powerful pulsation communicated to hand. A short, loud, abrupt bellows-sound will be heard.

Treatment. *General Rules:*—In aortic aneurism, all bodily and mental excitement must be avoided. Pain, cough, dyspnœa, and other prominent symptoms to be alleviated. Generous reparative diet to be allowed: sherry, Bordeaux, Rhine, or Hungarian wines; brandy or whisky and water; avoidance of malt liquors. Attention to be paid to digestive, secreting, and excreting functions.

Curative:—Iodide of potassium, in large doses, 31. Acetate of lead, in gradually increasing doses, perhaps up to twenty grains daily; with acetic acid. Iodo-tannin. Tincture of perchloride of iron, 101. Ammoniated iron alum, 116. *Locally:*—Ice. Electricity. Electro-puncture. Belladonna plasters. Puncture with a small trocar and canula, and introduction of fine iron wire through latter, so as to afford an extensive surface on which fibrin may coagulate (Murchison and Moore). In abdominal aortic aneurism, pressure with a tourniquet for several hours, patient being kept under influence of chloroform (William Murray). Valsalva's plan of frequent bleedings, while patient is kept on lowest possible diet, not to be recommended.

Palliative:—Opium. Morphia. Subcutaneous injection of morphia.

Belladonna. Digitalis. Indian hemp. Camphor. Assafœtida. Spirit of ether or chloroform. Mercury, digitalis, and squills. Tracheotomy, if suffocation threaten. Small bleedings, where there is great pulmonary congestion.

AORTITIS.—From Ἀορτή, the great artery; terminal *-itis*. Synon. *Inflammatio Aortæ.*—Acute inflammation of aorta a very rare affection. Probably a blood disease: allied to rheumatism, like pericarditis and endocarditis.

Symptoms. Very obscure. General uneasiness. Rigors followed by fever. Orthopnœa, with frequent sense of suffocation. Pain and violent pulsation in vessel. Great palpitation. Sometimes, a loud systolic bruit. Pulse often unaffected.

Coats of aorta may undergo structural changes; either as result of chronic inflammation, or of a simple degeneration of tissues. Mineral or ossific, amyloid, and atheromatous or fatty degenerations, most frequently met with in advanced life, although they may occur at an earlier period.

Treatment. Iodide of potassium. Colchicum. Aconite. Opium. Spirit of ether. Spirit of chloroform. Warm baths. Dry cupping over spine. Ice to spine. Blisters.

APHASIA.—From Ἀ, priv.; φάσις, speech.—A loss of the cerebral faculty of speech; and (in most cases) of the power of expressing the thoughts by writing and gestures. In other words,—a simultaneous loss, in a greater or lesser degree, of the memory of words, the memory of the acts by means of which words are articulated, and of intelligence (Trousseau).

Aphasia sometimes transitory, as occasionally during convalescence from severe attack of fever, when it may be owing to cerebral congestion. It may be permanent, and due to softening of brain, or to cerebral hæmorrhage. Some physiologists have tried to prove that the faculty of expressing thought by speech is seated in the posterior portion of the third frontal convolution of the brain, chiefly on the left side. Clinical experience disproves this theory. Aphasia with hemiplegia, especially of right side, is the most common form. In all cases there is a tendency to apoplexy.

Symptoms. Sudden deprivation of power of speech. Perhaps, in a short time, one or two words can be uttered, which are then spoken in reply to all kinds of questions. Face intelligent. Movements of lips and tongue and larynx healthy. There may be consciousness of what is wished to be expressed, and yet complete inability to express the thoughts by speech, gestures, or even (frequently) by writing. Aphasic patients know the use of objects (such as spoons, night-caps, pipes, &c.) though they cannot name them. Moreover, they can often play correctly at cards, backgammon, dominoes, &c. They can perhaps read; but if they understand what they peruse they forget directly, as they will pore over the same page again and again.

The case related by Trousseau, of a Russian gentleman, resident in Paris, forms a good example of aphasia. Mr. T. spoke French like

a Parisian, yet after his attack was unable to speak a word of French. When questioned, he smiled and said "*da*," a Russian word meaning *yes*. He was unable to construct even part of a sentence in his own language. When shown a spoon he could make gestures showing its use: and yet had forgotten its name in Russian and French. Nevertheless, he could play at whist correctly, and noticed any errors of his adversaries by making a gesture.—In another example, a young man 25 years old, was attacked with hemiplegia of right side and aphasia. Some power of moving right leg, and then of arm, returned; but he could only articulate two words,—*No* and *Mamma*. "What's your name?"—"Mamma." "What's your age?"—"Mamma, no." Yet he knew that his reply was incorrect. He had taught himself to write with his left hand, as far as signing his name. He wrote this legibly. But on being told to say "Guénier" as he had written it, he made an effort and said "Mamma." "Say Henri," and he replied, "No, mamma." On being told to write "mamma," he wrote "Guénier." "Write no;" and he again wrote "Guénier."

Treatment. In cases of aphasia without hemiplegia recovery may occur spontaneously. Probably any kind of treatment (by drugs, bleeding, or blistering) is injurious. In aphasia with hemiplegia medicine is powerless to effect a cure; save in cases dependent on syphilis, when iodide of potassium is the remedy.

APHONIA.—From Ἀ, priv.; φωνή, the voice.—Loss of voice, from organic or functional disease of vocal cords, varies in degree from a slight impairment to complete dumbness. It is either temporary or permanent.

Varieties. Aphonia may be due either to functional disorder, or to structural change.

(1) *Functional variety:*—Hysterical aphonia typical. Generally allied with other symptoms indicative of its nature. In women, uterine functions frequently disturbed: irritation of one or both ovaries often present. Leucorrhœa: amenorrhœa, or sometimes menorrhagia.—Patient speaks in a whisper for days together. Then power returns, but relapses are common.—Aphonia from fright occurs in men as well as in women.—If functional aphonia be of long continuance, the vocal cords will probably become flaccid and powerless. An examination by laryngoscope shows a paralytic condition of cords. Faradization very useful.

(2) *Organic form:*—Caused by inflammation, serous infiltration, ulceration of mucous membrane about vocal cords; conditions detected by laryngoscope. May also arise from pressure of morbid growths in or near larynx: disease of brain, producing paralysis of muscles of larynx, on normal action of which, the tension and position of vocal cords depends.

Treatment. *If functional:*—Quinine and steel, 380. Quinine and nux vomica, 387. Compound iron mixture with aloes, 393. Phosphate of iron, 405. Strychnia and steel, 408. Zinc and nux vomica, 409. Valerianate of zinc, 410. Nourishing food. Galvanism. Spray of astringent fluids, 262. Shower baths. Moral influence.

When organic:—For cure of inflammation and ulceration about vocal cords, sponging with solution of nitrate of silver (gr. 40 to fl. oz. j). Spray of astringent fluids, 262. Scarification, in œdema of glottis. Removal of polypi, or other growths, by wire écraseur. Ferruginous tonics. Cod liver oil, &c.—For loss of the faculty of expressing the thoughts by speech, see *Aphasia.*

APHTHÆ OF MOUTH.—From Ἅπτω, to fasten upon. Synon. *Stomatitis Exudativa; Muguet; Thrush.*—Aphthæ consist of small, round, white, elevated specks or patches, scattered over tongue and lining membrane of mouth, and sometimes extending down œsophagus. Forms a special disorder in infancy—the *thrush:* in adult age, aphthæ often produced in course of prostrating disease.—Two microscopical parasitic plants—*Leptothrix buccalis* and *Oidium albicans*—developed in large quantity, in and between epithelial cells of mucous membrane: filaments and spores of these fungi render epithelium friable, loose, and swollen.

Symptoms. Restlessness. Debility. Cough. Difficulty in swallowing. Vomiting. Diarrhœa. Where aphthous spots are abundant they may coalesce, forming a dirty diphtherial-looking membrane.

Treatment. Application of borax and glycerine, 250. Application of sulphite of soda (gr. 60 to water fl. oz. j). Mild astringents. Bark and port wine. Chemical food, 405. Cod liver oil. Chlorate of potash. Pure milk. Liebig's food, 4. Restorative soup, 2. Beef tea.

APOPLEXY.—From Ἀπὸ, by means of; πλήσσω, to strike,—because those attacked fall down, as if from a blow.—A state of coma, occurring suddenly from pressure on the brain, the compressing power having its seat within the cranium. There is sudden loss of sensation, thought, and power of voluntary motion; with more or less severe disturbance of respiration and circulation.

Warnings. Apoplexy seldom occurs without some previous threatenings, such as:—Headache and giddiness, experienced particularly on stooping; feeling of weight and fulness in head; noises in ears, temporary deafness; transient blindness, or sometimes double vision; repeated epistaxis; fits of nausea; occasional sense of numbness in limbs; loss of memory; great mental depression; incoherent talking; drowsiness; indistinctness of articulation; and partial paralysis, affecting a limb, or muscles of face, or eyelids.

Certain individuals predisposed:—Those whose ancestors suffered from it; men of a peculiar habit of body, of sedentary habits, accustomed to high living, with protuberant bellies, large heads, florid features, and short thick necks; and individuals advanced in life, beyond fifty. A predisposition also engendered by disease of kidneys, heart, or cerebral bloodvessels; by intemperance; and by cessation of habitual discharges.

Varieties. The comatose condition may cease in one of three ways:—It may gradually pass off, leaving patient well; or it may terminate in incomplete recovery, mind being impaired, and some parts of body paralysed; or it may end in death. In latter case, on

examining the brain we find either no appearance whatever of disease; or extravasated blood is discovered in ventricles, or pons Varolii, or to large amount in centrum ovale majus, or in sac of arachnoid; or there is copious effusion of serum into ventricles or beneath arachnoid, with or without cerebral softening. That which is fatal without leaving any traces, is *nervous* or *simple* apoplexy; the second, *sanguineous* apoplexy, or *cerebral hæmorrhage;* the third, *serous* apoplexy. Apoplexy may also result from embolism. During life it may be impossible to distinguish by the symptoms these varieties.

Modes of Seizure. Commences in three different ways:—In *first*, patient falls down suddenly; deprived of sense and motion; lies like a person in deep sleep. Face generally flushed. Breathing stertorous. Pulse full and not frequent, occasionally below natural standard. Sometimes convulsions; or rigidity and contraction of muscles of limbs, perhaps only on one side (Abercrombie).

In *second* form, coma not the first symptom. Complaint made of sudden pain in head. Pallor, sickness, faintness. Sometimes vomiting. Frequently, patient falls to ground in a state resembling syncope. Occasionally, instead of falling, the sudden pain is only accompanied by slight and transient loss of consciousness. After a few hours, headache continuing, he becomes heavy and oppressed and forgetful: gradually sinks into complete coma, from which recovery is rare. A large clot usually found in brain.

Third variety begins by symptoms of cerebral hæmorrhage. There is an attack of paralysis of one side: sometimes deprivation of power of speech, but no loss of consciousness. The paralysis may pass into coma; or it may remain without further urgent symptoms; or it may slowly go off and patient recover: or it may pass off and death occur suddenly some hours or days subsequently, from return of hæmorrhage (see *Cerebral Hæmorrhage*).

Phenomena during Fit. Duration of apoplectic fit varies from two or three hours to as many days. There is total unconsciousness. Pulse, at first generally small, becomes full and strong, according as system recovers from shock; it is usually slower than natural, sometimes intermitting. Respiration slow, embarrassed, often accompanied by stertor: frothy saliva about mouth.—In bad cases, body covered with cold clammy sweat; face pale; eyes dull and glassy, with dilatation of one or both pupils according as pressure is on one or both sides; teeth firmly clenched, and all power of deglutition lost, or much impeded; stertorous breathing. Bowels torpid, or motions passed involuntarily. Involuntary micturition; or retention of urine, until bladder becomes distended and overflows, causing urine to be constantly dribbling away. When patient recovers incompletely, more or less paralysis of limbs often remains.

Treatment. *Prophylactic:*—Where predisposition is suspected, it is necessary to warn patient against strong bodily exertion; venereal excitement; stimulus and irritation of any approach to drunkenness; heavy meals; violent mental emotion; exposure to extremes of temperature; constipation and straining at stool; long-continued stooping; tight neckcloths; and hot baths. Diet to be moderate. Bed-

room to be cool and well-ventilated: to sleep on a mattress, with head high. Daily exercise in open air. Head to be washed in morning with cold water. Where there is giddiness, or epistaxis, or headache, or throbbing of arteries of head, a few doses of an active purgative will be useful: perhaps, blisters or seton to nape of neck. Leeches to sides of anus, where the threatening seems due to the suppression of some accustomed discharge.—Where there is anæmia, bark and mineral acids, or small doses of steel; with good easily digested food, and plenty of milk.—Arsenious acid (gr. $\frac{1}{30}$—$\frac{1}{12}$ twice daily) in combination with liquor potassæ has been recommended, on the supposition that it reduces the excess of red globules in the blood.

Curative:—The rule is, after an attack, "to obviate the tendency to death" (Cullen). If tendency be towards death by coma; if pulse be full, hard, or thrilling; if vessels of neck are congested; if face be flushed and turgid,—general bleeding, or cupping from nape of neck, may be called for. Contrariwise, if patient be dying from syncope, with a feeble or almost imperceptible pulse, and a cold clammy skin,—then bleeding will only ensure a speedily fatal termination. Bleeding sometimes employed to prevent increase of extravasation; but it is probable that this remedy promotes further loss, as it induces greater thinness of blood and diminishes power of coagulation.

Patient to be removed into a cool and well-ventilated room. Head to be raised. All tight parts of dress to be loosened, especially cravat and shirt collar. Cold to the head, by means of pounded ice in a bladder. If power of swallowing remain, calomel and jalap, followed by common black draught, 140. Where deglutition is impossible, two or three drops of croton oil on back part of tongue. Stimulating and purgative enemata, 189, 190, 191. Pediluvia containing mustard. Blisters to scalp, or nucha, seldom of benefit in any stage and never at early period. Emetics only useful where attack is due to overloaded stomach.

In event of recovery:—Great care needed to prevent a second fit. Strong medicines, great excitement, severe mental occupation to be avoided. Simple, but nutritious diet: animal food: milk. Light French, German, or Hungarian wines.

ASCITES.—From Ἀσκὸς, a wine-skin or leather bottle,—because of the swollen condition of the belly. Synon. *Hydrops Abdominis; Hydroperitoneum; Dropsy of the Peritoneum.*—Consists of a tense swollen condition of abdomen, owing to presence of a watery fluid in cavity of serous lining.

May arise from,—chronic peritonitis; cirrhosis, cancer, obliteration of portal vein, and amyloid degeneration of liver, causing obstruction to free passage of blood through system of vena portæ; renal disease and albuminuria; disease of heart or aorta; disease and enlargement of spleen; malignant affections of omentum; and a few more simple disorders,—congestion of kidneys, functional derangement of heart, anæmia. Cirrhosis of liver and renal disease, most common causes.

Symptoms. Characteristic appearance of patient. Upper part of body wasted, features pinched, countenance very anxious: abdomen

greatly enlarged, integuments shining, superficial veins dilated. Fluctuation: resonance on percussion. In advanced stage, dyspnœa: respiratory murmur cannot be heard as low down as in health: tubular breathing in interscapular regions, especially towards left: apex of heart elevated, and rather pressed to the left. Commonly, anasarca of lower extremities: more rarely, especially in renal dropsy, œdema of face and arms. Urine scanty, often loaded with urates: in ascites from cirrhosis it generally contains bile; in that from renal disease, albumen. Increasing deterioration of general health. Weakness and emaciation. Loss of appetite. Sleeplessness. Inability to lie down. Exhaustion: ending fatally when the dropsy is due to organic disease.

Treatment. Compound powder of jalap. Acid tartrate of potash. Pill of colocynth and hyoscyamus. Elaterium, 157. Resin of podophyllum, 160. Croton oil, 168. Gamboge with aloes and blue pill, 174. Calomel and jalap, 159. Acetate of potash, squills, and broom, 219. Solution of potash, nitrous ether, and digitalis, 220. Spirit of juniper, nitrous ether, and winter green, 221. Digitalis and squills, with blue pill or taraxacum, 219, 224. Urea, 225. Nitric acid, nitrous ether, and taraxacum, 147. Acid tartrate of potash and buchu, 222. Nitrate of potash and nitrous ether, 212. Conium, digitalis, and calomel, 230. Hydrochlorate of ammonia, 60. Iodide of potassium, 31. Iodide of iron, 32. Corrosive sublimate, 27. Nitro-hydrochloric acid, 378. Colchicum, 46. Tincture of perchloride of iron. Phosphate of iron, 405. Quinine and steel, 380. Steel and ammonia, 401, 403. Warm baths. Vapour baths. Turkish bath. Tapping. Acupuncture. Issues.

As a rule, in dropsy from renal disease, all preparations of mercury are injurious, and diuretics must be employed cautiously: baths especially useful. Mercurials pernicious where there is anæmia: compound jalap powder, hot air baths, and preparations of steel very valuable.—See *Dropsy*.

ASTHENOPIA.—From ’A, priv.; *σθένος*, strength; *ὤψ*, the eye. Weak-sightedness, from fatigue of muscular system of accommodation. Synon. *Muscular Amaurosis*.

Symptoms. The eyes appear normal. Inability to read or write for any length of time: letters become indistinct, and words seem to run into each other. The eyes ache or get very tired. Muscæ volitantes. Headache. If unrelieved, the eyes become useless for continued work.

Treatment. When dependent on hypermetropia, may be cured by proper use of convex glasses. If due to anæmia,—ferruginous tonics, sea-air, good food, cold water douche, and spectacles of sufficient power. Work to be interrupted every half-hour by rest, so long as fatigue is induced.

ASTHMA.—From ’A*σθμάζω*, to gasp for breath. Synon. *Spasmus Bronchialis*.—A nervous disease: phenomena dependent on tonic contraction of circular muscular fibres of bronchial tubes. Paroxysms

induced by direct or reflex mechanism, *i.e.*—the stimulus to contraction may be central, in medulla oblongata; or it will be in pulmonary or gastric portion of pneumogastric, or in some other part of nervous system besides the vagus, and being transmitted to medulla oblongata by incident, is thence reflected by motor filaments.

Symptoms. A fit of asthma is preceded either by headache and sleepiness, or by various digestive or other disturbances, or it occurs suddenly without warning. Patient awakes two or three hours after midnight with sensation of suffocation or constriction about chest: dyspnœa increases, until there is a most painful struggle for breath. Various postures assumed to facilitate respiration. Chest gets distended to utmost limit: there is evidently some obstruction to entrance and exit of air. On auscultation, no respiratory murmur audible; but sibilant rhonchi, loud wheezings, or shrill whistlings are heard. Pulse becomes small and feeble. Eyes staring. Countenance anxious. Lips purple. Temperature of surface often falls to 82° F.; but after a time the fatigue causes the skin to be bathed in a hot sweat. After a longer period, relief comes. Cough, with expectoration of little pellets of mucus. Paroxysm ceases, and sufferer falls asleep.

During interval between attacks, moderately good health enjoyed, with quiet breathing. Most asthmatics thin and round shouldered: countenance expressive of attacks of suffering; cheeks hollow; voice rather hoarse; slight cough. Interval varies in length from twenty-four hours to twelve months. Attacks sometimes periodic. Asthma very capricious: kept off by certain climates, but only experiment can decide which air is suitable for each case. More common in men than women. Often hereditary. In *idiopathic* or *spasmodic* asthma, the disease is uncomplicated. In *symptomatic* or *organic* asthma, the suffering is complicated with, or symptomatic of, some disease of nervous system, of alimentary canal, of heart, of lungs, or even of skin.

Treatment. *During paroxysm:*—If stomach contain undigested food, a stimulating emetic, 232. If rectum be loaded, an enema of castor oil and assafœtida and rue, 189. Croton oil and turpentine enema, 191.—Great object is to relax bronchial spasm. A dose of iodide of potassium (grs. 10), with ammonia or ether, and tincture of belladonna (min. xx—xxx), often succeeds. Subcutaneous injection of atropine, 314. Opium or morphia often injurious: if given, only a full dose will be of any avail, but the author's experience leads him to forbid it. A cup of strong coffee. A glass of strong brandy or whisky or rum punch. Inhalation of chloroform, or ether, of doubtful value: patient usually gets relief while inhalation is continued, but wakes up as bad as before. Iodoform, 338. Tobacco useful in some cases, especially in women: when it produces nausea and collapse, the attack often ceases. A pipe of Latakia sufficient for those unaccustomed to smoking. Stramonium cigars. Stramonium seeds smoked in a pipe. Datura Tatula cigars. Cigares Anti-Asthmatiques de M. Joy. Stramonium with henbane, 323. Conium with henbane, 335. Nitre-paper fumes. Turpentine stupes. Hot-water stupes. Sinapisms. Hemlock poultice.

In interval:—Improvement of general health by tonics; Tegular mode of life; use of cold shower or sponge bath. Removal of dyspepsia. Meals to be taken at such times that digestion may be completed before retiring to bed. Selection of a climate the opposite to that in which attacks come on.

When mucous membrane about fauces is relaxed,—Tannin or catechu lozenges. Atomised spray of astringent fluids, 262. Sponging with solution of nitrate of silver.—If digestion be weak,—Nitro-hydrochloric acid, 378. Pepsine, 420. Ammonia and bitters, 361. Quinine and rhubarb, 385. Steel and citrate of potash, 403.—If periodic,—Quinine. Arsenic.—If cause be obscure,—Iodide of potassium with aconite, or with ammonia and belladonna, 31. Inhalation of oxygen gas. Respiration of compressed air.

Remedies sometimes employed:—Garlic (Allium sativum). Bulb of common onion (Allium cepa). Carbonate of ammonia. Ammoniacum mixture. Compound squill pill. Assafœtida. Nitrate of silver. Arsenic. Camphor. Musk. Galbanum. Ipecacuanha. Dilute hydrocyanic acid. Indian hemp. Petroleum. Senega. Strychnia. Storax. Compound tincture of benzoin. Sumbul. Oxide of zinc. Valerianate of zinc or ammonia. Sulphate of zinc. Blisters to spine or nucha. Ointment of tartarated antimony to chest walls. Issues. Galvanism.

ASTIGMATISM.—From ’A, priv.; *στίγμα*, a point,—signifying that rays derived from one point, do not again unite into one point.—An inequality in the refractive power of the several meridians of the eye. The asymmetry on which astigmatism depends is proper to all eyes. Usually it exists in so slight a degree, that the acuteness of vision is not essentially impaired by it (normal astigmatism). But exceptionally it becomes considerable, and occasions an aberration of the rays of light, which interferes with the sharpness of sight (Donders).

ATELECTASIS.—From ’Ατελής, imperfect; *ἔκτασις*, dilatation.—A congenital non-expansion of air-cells of lungs.—See *Pulmonary Condensation.*

BALANITIS.—From Βάλανος, the glans penis; terminal *-itis*—from Ἴημι, to impel, and signifying inflammation when added to the Greek name of an organ. Synon. *External Clap; Gonorrhœa Præputialis.*—Consists of inflammation, with redness and patches of excoriation, of the glans penis and internal surface of the prepuce. Sometimes the affection is termed balanitis when only the glans is affected; balano-posthitis (Βάλανος πόσθη, the skin covering the glans, terminal *-itis*,) being applied when the lining of the prepuce is also involved. This refinement unnecessary: the two conditions are rarely seen apart.

Symptoms. Heat and itching about the glans. A muco-purulent discharge. On denuding the glans, patches of redness and excoriation perceived, perhaps with flakes of curd-like matter. If there be œdema

of foreskin, or the orifice of this covering be contracted, retraction may be impossible—phymosis. Necessity of drawing back the foreskin,—there may be a chancre, or an abscess, or mortification may be threatening. Sympathetic bubo may arise. Sometimes complicated with gonorrhœa. Balanitis from inoculation with secondary syphilitic discharge, may cause constitutional infection.

A similar disorder—*vulvitis*—occasionally met with in women, or female children.

Treatment. Great cleanliness. Lightly touching of inflamed surface with nitrate of silver. Astringent lotions,—alum, subacetate of lead, sulphate of zinc, &c. Mere washing and drying of part, twice in 24 hours, with separation of glans from prepuce by a thin layer of cotton wool. Circumcision. Slitting up of prepuce. Dilatation of preputial opening with sponge tents. After retraction of foreskin it is again to be drawn forwards, to avoid paraphymosis.

BARBADOES LEG.—Synon. *Elephantiasis Arabum; Glandular Disease of Barbadoes; Bucnomia Tropica.*—Characterised by great swelling and induration of true skin, or derma. Produces most marked deformity. Sometimes subjacent areolar and adipose tissues are implicated. Most frequently attacks lower extremities: swelling so great that limb becomes double its natural size. Hardness, severe pain, and thickening; with an appearance resembling the leg of an elephant, whence the disease has unfortunately derived one of its names (Ελέφας, the elephant). The scrotum not an uncommon seat of it. Rarely met with in Europe: occurs principally in West Indies. Generally continues for life; causes alarming constitutional disturbance; neither contagious nor hereditary; attacks males and females, rich and poor, indiscriminately. When confined to one foot and leg, amputation has been resorted to with advantage. Ligature of main artery of limb. The success which has followed removal of large scrotal tumours in India is very remarkable.

BED CASE.—A not uncommon form of hysteria. Subjects of it live in bed; they are tranquil, cheerful, have good digestions, and like the kind attentions of sympathizing friends. Often impressed with belief that there is serious disease in spine, or in womb: there are certain movements which they think cannot be made without "horrible" pain. Menstruation frequently attended with suffering; leucorrhœa.—Amongst examples of this pseudo-disease which have come under author's observation, the most marked was that of a single lady, thirty-four years of age, who first consulted him in 1861. This patient had then been confined to her room, and almost to bed, for ten years. Had been treated for spinal disease; taken large quantities of medicine; leeches, blisters, setons, &c., had been freely used. On examination every part of her body was found healthy with exception of uterus, which was retroflexed. By replacing this, and by galvanism to long inactive muscles, a cure was effected; but great patience was needed to get her from bed to sofa, from sofa to chair, from chair to crutches, and so on until at the end

of three months she could walk out in open air. Some cases can be cured in a much shorter time. Each example varies in regard to important mental peculiarities, and tact is needed to persuade patient to get well.—See *Hysteria.*

BERIBERI.—From *Beri* the Singalese for weakness, by iteration implying great weakness. Synon. *Bad Sickness of Ceylon.*—A form of general dropsy almost unknown to pathologists in this country. It is very fatal to European and native troops at Ceylon.

Symptoms. Increasing weakness. Marked anæmia. Anxiety. Numbness of the surface. Stiffness and œdema of lower extremities. Dyspnœa. Paralysis. Suppression of urine. Effusion of serum into pleuræ and pericardium. Exhaustion. Generally death.

Treatment. Elaterium. Calomel and squills. Squills and digitalis. Treeak Farook, an electuary much esteemed in parts of India, the ingredients of which are unknown, but which acts as an aperient and mild diuretic when combined with rhubarb: the dose is from grs. 5 to 15. Oleum nigrum, regarded as a valuable preparation in India; having stimulant and diaphoretic properties in doses of ten minims. Tonics. Tincture of perchloride of iron. Effervescing draughts. Opium. Nux vomica. Spirit of nitrous ether. Nourishing diet. Wine.

Bleeding. Cupping over spine. Blisters. Friction, with stimulating liniments. Galvanism.

BILIARY CALCULI.—From *Bilis*, bile: *Calculus* (dimin. of calx), a small stone.—See *Gall-Stones.*

BITES OF RABID ANIMALS.—The immediate *treatment* is as follows:—The tissues around seat of injury are to be compressed by a ligature or otherwise, to prevent absorption. Then the wounded part is to be excised as soon as possible; taking care to remove every portion touched by animal's teeth, and to obtain a clean raw surface. The wound should next be thoroughly washed by a stream of water, long poured over it: lunar caustic afterwards to be applied. Mr. Youatt prefers nitrate of silver freely used, to every other caustic: he recommends that after its application the wound be quickly healed. Some authorities advise that the wound be kept open by irritating ointments. Chloroform may be given to prevent pain of knife. Subsequently, patient to be assured that all has been done to prevent any after mischief. To afford him greater confidence, administer for some days the sulphite of magnesia in bark, 48.—See *Hydrophobia.*

BITES OF VENOMOUS REPTILES.—The poisonous reptiles provided with fangs are the ophidia or serpents. Chief foreign serpents:—(1) *Cerastes* or *Horned Serpents*, allied to vipers, and much to be dreaded. (2) *Crotali* or *Rattle Snakes*, provided with long poison fangs, and a reservoir of some size. In human subject, the poison is fatal in two or three minutes. (3) *Bothrops* or *Javelin Snakes*, inhabitants of Martinique and St. Lucia. The most formidable species is the yellow viper of Martinique. M. Guyon saw several

soldiers perish from its bite. Death may occur almost immediately, or in the course of twenty-four hours. And (4) *Naia*, or *Spectacled Serpents*, or *Hooded Snakes*, which are met with in Arabia and India. This group contains the coluber haje, the true asp of the ancients: also the cobra di capello.

The only poisonous reptile indigenous to this country is the *Common Viper* or *Adder*. It is found on the heaths and in the dry woods of all parts of Great Britain. Poison apparatus consists of a gland placed by side of head, a duct, and a fang or pointed curved tooth moulded in form of a tube. The bite rarely proves fatal. The wounded part becomes the seat of severe pain; great swelling, redness, and lividity. Faintness: rapidity and feebleness of pulse. Bilious vomitings. Dyspnœa. Profuse cold sweats. Jaundice. Delirium, or convulsions.

Treatment. *Locally:*—The wound to be immediately sucked freely and perseveringly. If patient is too faint to do this for himself, a bystander can fearlessly help him: it is well known that these poisons may be swallowed, or smeared upon the lips and tongue (provided there is no abrasion), with impunity. At same time a ligature is to be placed around the limb, above the wound; or if this be impossible from its situation, the textures around are to be compressed. Then, the bitten part to be excised; or it may be destroyed by actual cautery, nitric acid, strong liquor ammoniæ, or nitrate of silver.

Constitutionally:—Remedies derived chiefly from class of diffusible stimulants. No agent more generally recommended than ammonia. Compound tincture of ammonia (Phar. Lond.), formerly known as eau de luce, in half-drachm doses well diluted; or aromatic spirits of ammonia, two drachms to an ounce-and-a-half of water. Supposing no ammonia is at hand, brandy will prove an excellent substitute. Transfusion of blood has been recommended.

BLACK LEG.—A form of purpura, which occurs amongst the lumbermen on the Ottawa or Grand River of Canada. It is produced by the use of pork packed in nitrate of potash.—See *Purpura.*

BLENNORRHAGIA.—From βλέννα, mucus or slime; ῥήγνυμι, to burst forth. A discharge from the mucous membrane of the urethra or vagina, usually contracted in sexual intercourse.—See *Gonorrhœa.*

BLENNORRHŒA.—From βλέννα, mucus; ῥέω, to flow.—See *Gonorrhœa, Gleet.*

BLOWS AND BRUISES.—Seldom necessary to do more than relieve pain and prevent discoloration. To be accomplished by:—Arnica lotions, 275. Aconite lotions, 265. Spirit and ammonia lotions, 273. Poultices of black bryony root (Bryonia nigra), used by pugilists. Glycerine. Oil of turpentine. Expressed juice of leaves of Mikania Guaco. Dilute solution of subacetate of lead.

BOILS.—A boil or furunculus (from *Ferveo*, to burn) is a circumscribed hard tumour, small but very painful, produced by inflamma-

tion of the true skin and subjacent areolar tissue. Morbid process terminates in suppuration and ulceration.

Treatment. Poultices. Fomentations. Painting with iodine. Peruvian balsam ointment. Incisions? Jalap and senna, 150. Sulphate of manganese, 172. Quinine, 379. Mineral acids and bark, 376. Liquor arsenicalis, 52. Yeast. Liquor potassæ. Tar, 36. Nourishing food. Wine or beer. Change of air.

BRASS-FOUNDER'S AGUE.—A peculiar form of intermittent fever, which affects brass-founders and other workmen exposed to the fumes of deflagrating zinc. Observed in the Birmingham foundries, &c.

Symptoms. The paroxysms occur irregularly. Constriction or tightness about chest. In the evening, shivering; an indistinct hot stage; profuse sweating.

Treatment. Emetics and milk, as prophylactics. Avoidance of the fumes of zinc. Tonics, quinine, &c.

BRIGHT'S DISEASE.—A term indiscriminately applied to all renal diseases accompanied by albuminuria and dropsy. If retained, it should be limited to some particular form of kidney disease. There may be considerable inconvenience, however, from introducing into medical nomenclature such terms as Addison's, Bright's, and Graves' Disease.—See *Nephritis; Renal Degenerations.*

BRONCHITIS.—From Βρόγχος, the windpipe; terminal *-itis.* Synon. *Pulmonary Catarrh.*—Inflammation of mucous membrane of bronchial tubes. May be acute or chronic: affects one or both lungs throughout, or only a portion of these organs—usually the upper lobes. Symptoms of hay-asthma often of a bronchial character.

1. Acute Bronchitis.—A dangerous disorder: inflammatory action often spreads to vesicular texture of lungs.

Symptoms. Fever. A sense of tightness or constriction about chest. Hurried respiration, with wheezing. Cough. Expectoration of viscid glairy mucus, and afterwards of purulent secretion. Frequent, and often weak, pulse. Foul tongue. Headache and lassitude. Sickness. Great anxiety.

Inflammation of *larger and medium-sized* tubes, attended by less severe symptoms and results than *general and capillary* bronchitis. Latter, rare in adults; chiefly seen in very young and old. It is recognised by tendency to cause asphyxia; paroxysms of dyspnœa or orthopnœa; congestion of surface; perpetual cough; general restlessness; increasing prostration; and in fatal cases, somnolence, muttering delirium, and coma.—Sometimes, during progress of acute bronchitis, one or more tubes become choked up with viscid phlegm; *pulmonary collapse* resulting—a portion of lung being emptied of air. One frequent result of collapse is vesicular emphysema; so that loss of function in airless part of lung is compensated for by increase of volume in non-obstructed portion.

In early stage of bronchitis, auscultation often detects two dry

sounds—*rhonchus* and *sibilus*. Rhonchus belongs to larger bronchi: sibilus bespeaks more danger, as denoting that smaller air-tubes and vesicles are affected. After inflamed membrane has poured out fluid, the dry are displaced by moist sounds—*large* and *small crepitation*. Rhonchus and large crepitation are the dry and moist sounds of larger air-passages: sibilus and small crepitation, of the smaller branches. No marked alteration in resonance of chest to be detected; with exception of increased resonance in emphysema, and dull percussion-note in collapse.

Treatment. Confinement to bed. Temperature of room 65° to 70° F. Air to be moistened by steam. Beef-tea; milk arrowroot or gruel; tea with milk; soda water and milk. Mucilaginous drinks, 19. Sarsaparilla, squills, and barley water, 238. White-wine whey, 10.

If there be constipation, castor oil; or sulphate of magnesia and senna, 139. Saline draughts, 348. Ammonia and senega, 235. Carbonate of ammonia, 361. Citrate of potash, ammonia, and aconite, 211. Dry cupping, turpentine stupes, or sinapisms to walls of chest. Inhalation of steam.

Remedies sometimes advised:—Bleeding. Blisters. Friction with croton oil, or tartarated antimony ointment. Emetics. Tartarated antimony. Calomel. Colchicum. Hydrocyanic acid. Chlorate of potash. Laurel water. Malt (Byne). Oxalic acid. Inhalation of chlorine.

2. Chronic Bronchitis.—Very common in advanced life.

Symptoms. Slighter forms, indicated by habitual cough, shortness of breath, copious expectoration: aggravated by exposure to cold and damp, bad living. Cases of "winter cough" in old people, mostly examples of bronchial inflammation of a low lingering form.—Impaired resonance on percussion, especially low down posteriorly: on auscultation, feeble vesicular murmur, mingled with rhonchus and sibilus and moist crepitation.—Dilatation of bronchi, with condensation of surrounding lung tissue, occasionally results: sometimes, bronchorrhœa—excessive and fœtid muco-purulent secretion.—Seldom directly fatal: may be indirect cause of death by leading to other diseases.

Treatment. Carbonate of ammonia, 361. Citrate of ammonia, 362. Ammonia and senega, 235. Ammoniac mixture and opium, 237. Squills, ammonia, and morphia, 239. Ipecacuan and Indian sarsaparilla, 241 Nitrous ether, ipecacuan, and conium, 244. Squills and conium, 243. Stramonium and dulcamara, 245. Sarsaparilla and squills, 238 Squills, nitric acid, and bark, 236. Compound squill pill. Benzoate of ammonia. Cod liver oil. Wine. Nourishing food. Milk.

Locally:—Inhalation of simple vapour. Turpentine or creasote inhalations, 260. Inhalation of atomised fluids, 262. Counter-irritation to thoacic walls by sinapisms; turpentine stupes; stimulating liniments, 277, 278. Warm, pitch, galbanum, or chalybeate plasters. Respirator to be worn.

Remedies sometimes recommended:—Emetics of antimonial wine, or sulphate of zinc. Tartarated antimony. Compound tincture of benzoin. Copaiba. Cubebs. Creasote. Guaiacum. Digitalis.

Chlorate of potash. Storax. Sulphur and acid tartrate of potash. Sumbul. Nitrate of silver (locally). Balsam of Peru (locally). Blisters, ointment of tartarated antimony, or croton oil (to chest walls).

3. Catarrhus Senilis.—A peculiar and severe form of chronic bronchitis, occurring in old people. Has been described as *peripneumonia notha* (bastard peripneumony); *catarrhus senilis;* or *subacute bronchitis.*—Consists of a subacute attack of general or capillary inflammation of tubes. Symptoms of violent catarrh: more or less dyspnœa: excessive secretion of opaque frothy mucus. Often much relieved by remedies which produce copious expectoration. Sometimes causes fatal prostration: or patient dies from suffocation, unable to expel accumulated mucus: or deficient oxygenation of blood leads to coma.

4. Plastic Bronchitis.—Rare form of bronchial disease. Characterised by formation (Πλάσσω, to form or figure, to make an image, &c.) of solid or tubular concretions of exudation-matter within bronchi.

Symptoms. Expectoration of casts of tubes. Small fragments expelled easily. Expulsion of moulds of notable size preceded by dyspnœa; dry cough; hæmoptysis. Sometimes, excessive hæmoptysis: fibrinous concretions detached, but not easily expelled from tubes. Occasionally, aneurismal or some other form of hæmorrhage; casts consisting of decolorized coagulated blood. Cases of plastic bronchitis may last for years, with occasional acute seizures.

Treatment. Remedies very ineffectual. Carbonate of ammonia, 361, 371. At time of hæmorrhage, gallic acid, 103: turpentine, 102: iron-alum, 116: tannin and nitric acid, 99. Nourishing food. Sea air.

5. Mechanical Bronchitis.—Due to inhalation of different particles which irritate bronchi. For example, grinder's rot, or knife-grinder's disease; carbonaceous bronchitis, or black phthisis, occurring in miners, from inhalation of lamp-smoke and carbonic acid gas formed in pits; and cotton pneumonia, or cotton phthisis, met with amongst operatives in cotton-mills.—Larch or Venice turpentine (Terebinthina laricea), in doses of gr. 15—20 made into pills with liquorice powder, and taken thrice daily, often serviceable.

6. Secondary Bronchitis.—Bronchitis occurring secondarily in blood-diseases, often troublesome. *Typhoid* bronchitis, may greatly aggravate danger in enteric fever.—*Gouty*, or *rheumatic* bronchitis, will require colchicum and iodide of potassium.—*Syphilitic* bronchitis, occurs in system poisoned to secondary or tertiary degree. Causes excessive muco-purulent expectoration; night sweats; wasting; great debility. May be cured by iodide of potassium, 31. Compound pill of calomel. Mercurial vapour bath, 131. Iodine inhalations, 259. Atomised iodine, or corrosive sublimate, spray, 262.

7. Hay-Asthma.—Synon. *Hay-Fever; Summer Catarrh.*—May be described as a severe catarrh, with asthmatic symptoms superadded. Probably due to inhalation of aroma of spring grass and hay.

Symptoms. Conjunctival, nasal, faucial, and bronchial mucous membranes are each affected. Headache. Suffusion of eyes. Sneezing. Irritation of nose and fauces. Dry harassing cough. Paroxysmal attacks of asthma.

Treatment. May be cut short by removal from cause; residence at sea-side especially. Susceptibility sometimes destroyed by quinine and steel; arsenic; nux vomica.

During attack:—Tincture of lobelia, 88. Ammonia and assafœtida, 86. Valerian and assafœtida, 94. Ether and opium with camphor, 85. Belladonna and zinc, 410. Stramonium. Indian hemp. Coffee. Subcutaneous injections of atropine, 314. Creasote inhalations, 261. Pipe of tobacco.

BRONCHOCELE.—From Βρογχος, the windpipe; κήλη, a swelling. Synon. *Thyrocele; Wen; Goitre* by the Swiss; and in this country *Derbyshire Neck* from its prevalence in some parts of Derbyshire.—An enlargement of the thyroid gland.

Symptoms. The whole gland may be swollen, or only the centre, or either side—especially the right. Sometimes no inconvenience beyond the deformity. In other cases, throbbing of vessels, palpitation of heart, mental depression, dyspepsia, and other manifestations of attenuated blood. Difficult respiration and deglutition from pressure of tumour. Irregularity of uterine functions. Scanty menstruation. Profuse leucorrhœa.

A *cystic* form, in which cysts are developed in the gland. Their lining membrane very vascular: brown-coloured serous contents.

Exophthalmic goitre. Protrusion of eye-ball (proptosis oculi); strong pulsations in thyroid body; palpitation of heart, with a bruit.

Treatment. Removal from infected locality. Regular establishment of menstrual functions. Iodide of ammonium, 38. Iodide of potassium, 31. Cod liver oil. Iodide of iron, 32. Quinine and iron, 380. Bromide of iron. Steel and aloes, 393. Digitalis. Liquor potassæ. Bromide of potassium. Strychnia. Bromide of ammonium. Nourishing food. Cold bathing. Sea air.

Locally:—Compound iodine ointment with cod liver oil, 308. Diluted iodine liniment. Ointment of iodide of ammonium. Ointment of iodide of potassium. Ointment of red iodide of mercury, 302. Ice. Setons. Ligature of thyroid arteries. Electro-puncture. Injection with solution of perchloride of iron, dangerous. Extirpation of the gland, unjustifiable.—See *Graves' Disease.*

BUBO.—From Βουβών, a tumour of the inguinal glands. Synon. *Adenophyma Inguinalis.*—Consists either of a simple or of a specific inflammatory enlargement of a lymphatic vessel, or of one of the glands in connexion with such vessel. Term "bubo" especially applied to inflammation of the inguinal glands. Superficial glands alone affected.

There are several varieties:—

(1) Simple Sympathetic Bubo.—Whatever causes lymphatic irritation may give rise to simple inflammatory adenitis. Hence it may arise from balanitis, gonorrhœa, excessive venery, &c. The action may

end in resolution, or go on to suppuration.—Requires rest. Warm bathing. Tonics. Cod liver oil. Evacuation of pus.—See *Adenitis.*

(2) Primary Bubo.—Said to form from the direct absorption of syphilitic matter, without the occurrence of any chancre or sore. Very rare. Described as *bubon d'emblée* by the French.

(3) Amygdaloid Indolent Bubo.—Comes on simultaneously with induration in cases of infecting chancre. Suppuration only occurs from some accidental complication.—Treatment the same as for constitutional syphilis.

(4) Virulent or Inoculable Bubo.—Due to absorption of virus from a soft or from a phagedænic chancre. Affected gland suppurates: walls of resulting abscess form a syphilitic sore, the pus from which is inoculable.—Requires free incisions. Potassa fusa. Soothing dressings. Frequent syringing. Quinine and iron. Nourishing food.

BULIMIC DYSPEPSIA.—Βοῦ, abbreviation of *βοῦς*, as an augmentative particle; *λιμὸς*, hunger,—*βούλιμος*, excessive hunger: *Δυς*, difficulty; *πέπτω*, to digest.—In some cases of nervous gastric disturbance, the appetite is exaggerated: is scarcely appeased by food. Digestion takes place easily and naturally; or is accompanied with acid eructations and pyrosis. Stomach often dilated.

Symptoms. Desire for food returns immediately after a meal. Constant hunger. Faintness and mental depression. Painful sense of sinking about præcordia.

Treatment. Cod liver oil, 389. Raw minced meat, 2. Pepsine, 420.

BURNS AND SCALDS. — Synon. *Ambustio* (*Amburo*, to burn around).—The danger varies according to the extent of surface injured, the degree of tissue disorganization, the importance of the organ implicated, and the age and constitution of patient.

Symptoms. Shock to system, sometimes so severe as to produce fatal syncope. Pallor and coldness of surface and extremities; shiverings. Rapidity and feebleness of pulse. Imperfect reaction and exhaustion: or violent reaction with fever, and congestion or inflammation of lungs or brain or bowels: or hectic fever from tedious cicatrization, exhausting discharges, &c. In few cases can the danger be said to be over until after the lapse of nine days. Where recovery ensues, there is the fear of deformity from contraction of cicatrices.

Treatment. To bring about reaction and relieve pain administer a full dose of opium, with mulled port wine or brandy and water: repeat the dose if necessary. Chloroform inhalation, where pain is excessive: the injured part to be dressed while patient is insensible. After reaction is well-established, a dose of castor oil or a purgative enema if there be constipation. Simple salines, where internal organs are congested or inflamed. Ice. Ammonia and bark, port wine or brandy, milk and raw eggs, beef tea with pounded meat, cod liver oil, where there is depression. In all cases, perseverance with opium or chloroform to remove pain and nervous irritability.

Locally:—Chief object to prevent access of air to injured surface. Immersion in cold water for many hours where only a portion of a

limb is burnt. Free application of lime liniment (Carron oil) on cotton wool. Cotton wool alone, with gentle bandaging. Dusting with flour, rice flour, prepared chalk, or equal parts of starch and carbonate of lead. Crusts formed by the applications not to be removed until loosened by discharges. Dressing with sulphur ointment, or turpentine ointment, subacetate of lead ointment, carbonate of zinc in ointment or powder, creasote, glycerine, sulphate of zinc lotion, solution of gum, collodion, treacle &c.

Patient to be kept in an easy position, between blankets, and on a water bed if necessary. All vesicles to be pricked, so that tension may be relieved by escape of contents; but the raised cuticle not to be displaced. The prevention of deformity to be attempted by attention to position, by movements of joints where practicable, and by lubricating cicatrix freely with oil.

CÆCITIS.—From *Cæcus*, blind; terminal *-itis*. Synon. *Typhlitis; Tuphlo-enteritis.*—Inflammation of the cæcum or its appendix.—May be due to accumulation of hard fæcal matter, skins or stones of fruit, biliary and intestinal concretions, balls of lumbrici and oxyurides &c.

Symptoms. In *acute* form:—Fever; nausea; constipation. Fulness and tenderness about right iliac region: pain, rendered exquisite by pressure. Position on right side selected, with trunk somewhat bent and knees drawn up, to relax painful tissues. If peritoneal coat get involved, appendix becomes inflamed; followed by evidence of general peritonitis. Areolar tissue round cæcum may also become inflamed (perityphlitis): suppuration and abscess.

When inflammatory action begins in *vermiform appendix* from constitutional causes, or escape into this part of morbid matter, symptoms are very acute. Excruciating tormina; tympanites; hiccup; violent sickness. Obstruction of bowels. Great pain, extending to right ovary or testicle and shooting down inside of thigh. Gangrene and general peritonitis may follow, and cause death. Or a portion of large intestine and cæcum with appendix may slough off, be passed with stool, and yet recovery ultimately ensue. In tuberculous typhlitis, ulceration occurs more frequently in appendix than in cæcum itself.

In *chronic* cæcitis:—Symptoms come on slowly and insidiously. Failing health; weakness; loss of flesh. Colicky pains in right iliac region. Flatulence; loss of appetite. Diarrhœa alternating with constipation. If mucous coat ulcerates,—mucous discharges; attacks of hæmorrhage. When fatal, exhaustion generally the cause. Perforation rare.

Treatment. *If acute*:—Opium. Opium and belladonna, 344. Olive oil enemata, 188. Mucilaginous drinks, 19. Chlorate of potash drink, 360. Lemonade. Ice: iced water. Prolonged hot hip baths. Fomentations. Linseed poultices. Most perfect quiet in bed. Milk diet.—*If symptoms of suppuration set in*:—Ammonia and bark, 371. Quinine and ammonia, 386. Brandy and egg mixture, with opium, 318. Milk or cream. Raw eggs. Essence of beef. Port wine.

Chronic form:—Mineral acids with quinine, 379. Iodide of am

monium and bark, 38. Cod liver oil. Warm bathing. Application of belladonna, 265. Wet compress with belladonna, 297. Simple nourishing food. Sea air.

CANCER OR CARCINOMA.—From Καρκίνος, a crab.—In the present state of medical science a cancer may be described as a local manifestation of a specific disease of the blood, having incorporated in it peculiar morbid materials which accumulate in the blood, and which its growth may tend to increase. As it is of constitutional origin, so the removal of the local manifestation does not effect a cure; but the cancer returns either in the seat of original disease, or in some other parts. Moreover, when the primary affection has existed for a variable period, secondary deposits are very apt to be formed in the lymphatic glands, lungs, liver, spleen, &c. This definition does not meet with universal acceptance; since some authorities now assert that the disease is at first local, though at an early period it becomes general.

There are three principal *varieties*, and five *sub-varieties* of malignant disease: the latter probably mere modifications of the former. They consist of:—

Scirrhus, or Hard Cancer.
Medullary, or Soft Cancer.
Epithelial Cancer.
Colloid, Gelatiniform, Alveolar, Cystic, or Gum Cancer.
Melanoid, or Black Cancer.
Osteoid Cancer.
Hæmatoid Cancer, or Fungus Hæmatodes.
Villous Cancer.

Symptoms. A separable tumour, or an infiltration; which alters the original texture of organ in which it is seated, invades surrounding parts, extends to lymphatics, and involves system generally. Softening and disintegration of the growth. Ulceration of skin or mucous membrane. A foul, excavated, spreading ulcer. Sanious, fœtid discharges. Hæmorrhages. Progressive debility and emaciation. Nausea and vomiting. Diarrhœa. Complete prostration. Exhaustion. Death.

The cancerous cachexia:—Dirty yellow hue of skin. Contracted features. General wasting. Loss of strength and energy. Mental irritability.

Cancerous growths abound in cell-formations and blood-vessels. "Cancer-cells" have one or more nuclei of large size, and one or two nucleoli. They bear a resemblance to secreting gland-cells. Degeneration of the cells. "Cancer-juice,"—a viscid or creamy fluid. A basis of fibrous tissue. Microscopical examination of tumours an aid to diagnosis.

Treatment. *General indications:*—Maintain the constitutional powers by tonics, nourishing food, pure air, warm clothing, removal of offensive discharges, and mental occupation as long as possible.

Relief of Pain:—Extract of opium, 343, 345. Opium with belladonna, 344. Liquid extract of opium. Morphia, 315, 329, 343.

Conium, 336. Henbane. Codeia. Indian hemp, 317, 337. Ether. Chloroform. Extract of hop. Subcutaneous injections of morphia, 314. Aconite. Atropine, 326. Iodoform, 338. Opiate enemata, 339. Opiate suppositories, 340.

Improvement of the Blood:—Liquid extract of yellow cinchona. Bark and ammonia, 371. Bark and mineral acids, 376. Iodide of iron, 382, 390. Reduced iron, 394. Ammonio-citrate of iron, 401, 403. Phosphate of iron, 405. Quinine and iron, 380. Lemon juice and chiretta, 377. Salicin, 388. Sarsaparilla. Sulphite of magnesia, 48. Chlorate of potash, 61. Cod liver oil, 389. Pepsine, 420.

Animal food. Milk and cream. Raw eggs. Brandy. Wine. Beer. Vichy or soda water. Wenham lake ice.

Abatement of local growth and systemic contamination:—Belladonna and opium, 344. Quinine and belladonna, 383. Zinc and belladonna, 332.

Local Remedies:—Belladonna, 265, 293. Opium and belladonna, 297. Extract of poppies. Extract of conium. Iodoform. Carbonic acid gas. Oxygen gas. Charcoal poultice. Yeast poultice. Hemlock poultice. Chlorine poultice. Linseed poultice, with or without belladonna or opium incorporated. Carrot poultice. Logwood, 82. Chlorate of potash lotion. Iodide of potassium lotion. Citric acid lotion, 264. Friction with solutions of iodide of lead, or iodide of potassium, or bromide of potassium. Perchloride of iron. Cotton wool.

Operative Treatment:—Free excision. Union by first intention not desirable. Excision, followed immediately by sponging entire surface of wound with solution of chloride of zinc (gr. 50 to fl. oz. j). Excision, followed by prolonged administration of belladonna, 383, 410. Ligature of nutrient arteries. Electricity. Methodical compression. Congelation. Actual cautery. Galvanic cautery. Friction and palpation.

Removal by caustics:—Chloride of zinc, 197. Chloride of zinc and puccoon. Chloride of bromium, 196. Dried sulphate of zinc. Supersulphate of zinc, 198. Arsenical paste, 199. Manganese cum potassa. Strong mineral acids. Concentrated alkalies. Vienna paste, 204.

Remedies often tried and found Valueless:—Calomel. Corrosive sublimate. Iodine. Iodide of potassium. Iodide of mercury. Iodide of lead. Bromine. Bromide of potassium. Arsenic. Iodide of arsenic. Sanguinaria Canadensis, or puccoon. Chloride of lime. Hydrocyanic acid.—Milk diet.—Leeches. Venesection. Blisters. Syphilization.

CANCRUM ORIS.—Sloughing phagedæna of the mouth. Occurs in young children.—See *Stomatitis.*

CARBUNCLE.—Dimin. of *Carbo*, "a live coal." Synon. *Anthrax* (from Ἄνθραξ, a coal).—Consists of severe inflammation of a circumscribed portion of skin and subjacent tissue, with infiltration of unhealthy lymph.

Symptoms. Flattened circular swelling. Throbbing or dull aching pain. Suppuration. Bloody purulent discharge. Slough of areolar

tissue. Vitiated state of the blood. Constitutional disturbance. Prostration. Fear of pyæmia.

Treatment. Poultices. Anodyne fomentations. Opium plaster. Crucial incisions. Subcutaneous incisions. Potassa fusa, rubbed into the centre until an eschar is formed, with avoidance of incisions and poultices. Congelation. Acid nitrate of mercury. Nitrate of silver. Turpentine ointment. Iodine, 205. Warm bathing to remove the discharges. Cotton wool.

Podophyllin, 160. Jalap and senna, 151. Colocynth and blue pill, 172. Saline aperients with colchicum, 152. Castor oil. Chlorate of potash and steel, 402. Arsenic, 52. Tar capsules, 36. Mineral acids and bark, 376. Ammonia and bark, 371. Quinine, 379. Opium. Morphia and Indian hemp, 317. Nourishing food. Hassall's flour of meat. Milk. Alcoholic stimulants.

CARDIAC ANEURISM.—From Καρδία, the heart: Ἀνευρύνω, to dilate.—Two forms of aneurism of the heart:—(1) The acute variety, depends on a laceration of endocardium and muscular tissue, through which the blood passes and makes a pouch. In this pouch fibrin is deposited, while at its entrance is a fringed margin of endocardium with vegetations attached. (2) The chronic form, results from some inflammatory condition of muscular fibre, or of endocardium. Walls of sac consist of endocardial and pericardial membranes unbroken, while the muscular fibre seems to be replaced by a fibroid tissue.—Either kind of aneurism gives rise to obscure and uncertain symptoms. Passage of blood into sac may cause a murmur. Death usually occurs suddenly from rupture.

Aneurismal dilatation and rupture of *coronary arteries* not a frequent event. No symptoms during life to allow of correct diagnosis.

CARDIAC ATROPHY.—From Καρδία, the heart: Ἀ, priv.; τρέφω, to nourish.—Two forms:—(1) That in which the heart wastes and dwindles in all its parts. (2) The texture of the muscular walls suffers a more or less complete conversion into fat.

1. Simple Atrophy.—Occurs in connexion with many exhausting diseases,—cancer, tuberculosis, diabetes, &c. The whole heart diminishes in size: after death weight found reduced from 9 to 5 oz. Minute examination detects the muscular fibres pale and soft, but otherwise healthy. The treatment must be that demanded by the constitutional state, of which the atrophy is merely a symptom.

2. Fatty Degeneration of Heart.—Occurs alone; or in conjunction with fatty disease of liver, kidneys, cornea, &c. Valvular disease rarely co-exists: when it does, aortic more generally affected than mitral valves.

Symptoms. Feeble action of heart: slow pulse, sometimes as low as fifty or forty-five. General debility. Transient attacks of giddiness or faintness. Nervous exhaustion, and loss of tone. Heart's sounds weak. Attacks of dyspnœa. Many of the symptoms of angina pectoris. Perhaps, an arcus senilis.—Occurs more frequently in men

than women. Most common at advanced period of life. May cause sudden death,—perhaps from rupture.

Treatment. Nourishing animal food. Milk. Cream. Cod liver oil. Mineral acids. Mild preparations of steel. Attention to digestive organs. Residence in pure air. Early hours. Gentle exercise. Avoidance of excitement. Tepid salt-water sponge baths.

3. Fatty Growth.—That condition in which the fat normally deposited upon the heart is increased on and amongst the muscular fibres to a morbid extent. May occur alone; or in conjunction with general obesity; or in association with fatty degeneration.

Symptoms. When existing alone the chief features are those of a heart enlarged and impeded in the performance of its functions. Pulse permanently quickened above normal standard, while its force is diminished.

Treatment. Animal food. Light French, German, or Hungarian wines. Avoidance of sugar, vegetables, oily, and starchy substances. —See *Obesity*.

CARDIAC CANCER.—From Καρδία, the heart.—Primary cancer of heart extremely rare. This organ is secondarily involved more frequently. Right auricle most frequent seat: sometimes perforated by the malignant growth. Disease occasionally extends along coats of large veins. It may occur as an infiltration in muscular tissue, or as a deposit in form of tumour.

Cancer of pericardium almost invariably the result of secondary and general deposits. Medullary more common than scirrhus.

CARDIAC DILATATION.—May occur under three forms:—(1) Hypertrophy of heart with dilatation: known as *active dilatation*, when the expansion predominates over the hypertrophy. (2) *Simple dilatation*, where thickness of walls is normal. (3) *Passive* or *attenuated dilatation*, the walls being thinned. Often combined with malnutrition of heart, and fatty degeneration of muscular fibres. May arise from exhausting disease, endocarditis, or perhaps from pericardial adhesion. The chief symptoms are, a small weak pulse; coldness of extremities; giddiness, and deranged digestion. Attacks of fainting; paroxysms of asthma; restless nights; palpitation; perhaps, anasarca followed by ascites.—Antispasmodics, ferruginous tonics, and agents to aid digestion are the only remedies. Alum has been recommended. Digitalis may deserve a cautious trial.

CARDIAC FUNCTIONAL DERANGEMENT.—From Καρδία, the heart.—May closely simulate organic disease of heart. Occurs in cases of hysteria, ovarian or uterine irritation, neuralgia, anæmia; not uncommon in women at "change of life." May be due to nervous exhaustion from over-study, anxiety, sexual excesses, &c.; to gout, rheumatism, or chronic liver disease; to use of tobacco or strong tea; to dyspepsia.

Symptoms. There may be irregular pulse, palpitation, fluttering; with a cardiac murmur and subcutaneous œdema in anæmic subjects.

Dull wearying ache in præcordial region: occasionally, lancinating pains. Inability to lie on left side, owing to tenderness. Mental depression. Dyspepsia: flatulence and acid eructations. Globus hystericus. Occasional attacks of giddiness, faintness, headache, noises in ears, flushings of face, violent pulsations in aorta &c.

TREATMENT. Allay symptoms while removing their source. Explain cause of suffering to patient. Antispasmodics and sedatives to quiet circulation,—Ether and ammonia &c., 85. Assafœtida and ammonia, 86. Sumbul and ether, 95. Henbane, camphor, and hop, 325. Codeia and assafœtida, 328.—Where there is any connexion with rheumatism,—Aconite and guaiacum, 330. Potash and ammonia, 67.—In gouty subjects,—Potash and aloes, 71. Citrate of lithia, 64. Stramonium, colchicum, and digitalis, 94. Colchicum, 46, 351, 352. Saline draughts, 348.—If there be constipation with unhealthy secretions,—Aloes and jalap, 145. Rhubarb and gentian, 146. Phosphate of soda and aloes, 149. Pepsine and aloes, 155.—If there be dyspepsia,—Carbonate of magnesia, 62. Ammonia and chiretta, 63. Potash and ammonia, 67. Soda, morphia, and hydrocyanic acid, 70. Ammonia in effervescence, 362. Bismuth, 65. Nitro-hydrochloric acid, 378. Pepsine, 420.—If there be nervous exhaustion or anæmia, —Citrate of steel and ammonia, 401, 403. Reduced iron and pepsine, 394. Phosphate of iron, 405. Steel and aloes, 404. Quinine and iron, 380.

In all forms,—Attention to diet. Tobacco and tea to be forbidden. Malt liquors usually disagree. Brandy and soda water. Light French, German, or Hungarian wines. Exercise in pure air. Sea bathing.

CARDIAC HYPERTROPHY.—From Καρδία, the heart: Ὑπὲρ, in excess; τρέφω, to nourish. Synon. *Hypertrophia Cordis.*—The heart is roughly said to be about the same size as the closed fist. Its average weight in adult male is 9½ oz.: in female 8¼. After sixtieth year, the weight is somewhat greater, owing to the thickness of walls of left ventricle having increased.

The muscular walls of one or more cavities may become thickened without any diminution in size of chamber,—*simple hypertrophy.* Or, the walls may be thickened and the chamber enlarged,—*eccentric hypertrophy,* or *hypertrophy with dilatation.* Or, the increase in thickness may be accompanied with diminution of size of cavity,—*concentric hypertrophy.*—Hypertrophy often beneficial: it counterbalances some impediment to flow of blood through heart, or to free play of this organ.—Hypertrophy of left ventricle with valvular disease, the most common form of this affection. Simple hypertrophy of left ventricle without any obstruction to flow of blood is rare: sometimes found in cases of chronic Bright's disease. Hypertrophy with dilatation of right ventricle, generally due to some chronic disease of lungs obstructing circulation.

SYMPTOMS. Will depend on extent of hypertrophy. Frequently, there are palpitations; dyspnœa; difficulty in walking quickly; uneasiness and pain about cardiac region; headache; repeated attacks of vertigo.

Systolic sound heard less distinctly than in health. Extent of pulsation and degree of impulse, increased. Murmurs in valvular disease.

TREATMENT. Circulation to be kept tranquil. If there be much debility,—Quinine and steel, 380. Steel and pepsine, 394. Steel and ammonia, 401. Phosphate of iron, 405. Bark and ammonia, 371. Mineral acids and bark, 376. Nitro-hydrochloric acid and chiretta, 378.—If heart's impulse be very great,—Aconite, 330. Digitalis, 334.—When dyspnœa is urgent,—Ammonia and ether, 364. Indian hemp, aconite, and ether, 342. Lobelia and ether, 322.

Remedies sometimes employed:—Bromide of potassium. Iodide of potassium. Hydrocyanic acid. Calomel. Acid tartrate of potash. Acetate of lead. Henbane. Morphia. Digitaline. Camphor. Spirit of nitrous ether. Hydrosulphuret of ammonia. Blisters.

CARDIAC RUPTURE.—From Καρδία, the heart.—Rupture of the heart may occur spontaneously from previous disease, or may be caused by external violence. In former case, more frequent on left than right side; in latter, the reverse. Laceration of walls of ventricles most common. Rupture of valves or their tendons, generally the consequence of prior attack of endocarditis: laceration of muscular wall frequently symptomatic of fatty degeneration, or of rupture of aneurism in ventricular wall.

When death does not result immediately, there is great orthopnœa; intense prostration; syncope; convulsions. In laceration of valves, of chordæ tendineæ, or of musculi papillares,—great oppression about præcordia, with a loud endocardial bruit. If wound gets plugged with coagula, patient may live for even some days.

CARDIAC VALVULAR DISEASE.—From Καρδία, the heart.—Most of the alterations in internal lining membrane of heart result from inflammation, which gives rise to a deposit of lymph upon or beneath the serous membrane. The valves lose their delicacy and transparency: become thick, puckered and adherent to each other. Independently of inflammation, the valves get covered with warty vegetations or excrescences; they may be converted into bone; or they become the seat of atheromatous or other deposits.

Effects twofold:—Either to contract and narrow the orifice and so obstruct the passage of the blood—*valvular obstruction;* or by thickening and shortening the valves, to make the orifice more or less patent, and hence permit of regurgitation of blood—*valvular insufficiency, regurgitant disease of valves,* &c. There may be only valvular obstruction, or valvular insufficiency; often, these conditions co-exist.

SYMPTOMS. Difficulty of breathing, varying from slightest dyspnœa to most severe orthopnœa: increased by exertion. Palpitation and irregular action of heart, with sounds and murmurs discoverable by auscultation. Alterations in pulse: soft and irregular in mitral disease, hard and jerking but regular in aortic. Congestion of lungs; bronchitis; pneumonia; pulmonary hæmorrhage. Hæmorrhages from nose, bronchi, or stomach. Œdema of lower extremities, some-

times of arms and face; hydrothorax; ascites. Dropsy more common in affections of right than of left cavities. Headache, noises in ears, vertigo, syncope, cerebral congestion, and cerebral hæmorrhage: most urgent in aortic disease. Broken rest, startings during sleep, frightful dreams. Enlargement of liver and spleen. Disordered digestion. A peculiar appearance of countenance,—face puffed; cheeks flushed and of purple hue; lips congested; eyes bright.

As disease becomes aggravated, patient gets weak and very nervous. Suffers immediately from over-exertion, mental emotion, improper food, exposure to cold and wet. Subsequently, death: either suddenly from syncope; or gradually from progress of secondary affections.

Physical signs:—Either or both sounds of heart accompanied or supplanted by a bellows-murmur (bruit de soufflet). A murmur may be harsh, or rough, or cooing, or whistling, or musical,—modifications of but slight importance. Of whatever character, a murmur is caused either by obstructions to free flow of blood through heart and great vessels, producing an *organic* murmur; or by an altered state of blood, or a clot in one of heart's cavities, giving rise to an *inorganic*, or *functional*, or *hæmic* murmur.

Lining membrane, valves, and orifices of left side of heart much more frequently diseased than those of right: almost questionable whether disease of tricuspid or pulmonary valves can be positively diagnosed.—Signs of disease of *aortic* and *mitral valves* may be thus briefly tabulated (Dr. Harvey):—

BRUIT:—If *systolic*, and loudest at
Base = AORTIC *obstruction.*
Apex = MITRAL *insufficiency.*
BRUIT:—If *diastolic*, and loudest at
Base = AORTIC *insufficiency.*
Apex = MITRAL *obstruction.*

PULSE: If *regular*, Full, or strong, Jerking, resilient, } = AORTIC disease.
PULSE: If *irregular*, Intermittent, unequal, Soft, small, weak, } = MITRAL disease.

Semilunar valves of pulmonary artery may be supposed to be diseased when the bellows-murmur can be traced from middle of left edge of sternum up towards left clavicle; and when this murmur cannot be heard in subclavian or carotid arteries. Pulse remaining unaltered.—*Tricuspid valve*, guarding right auriculo-ventricular opening, seldom found otherwise than healthy. When diseased, a murmur may be heard over central and lower part of sternum, extending downwards to epigastrium, and inaudible in aorta and its branches. There is also turgescence, with pulsation of jugular veins at every ventricular systole. Arterial pulse unaffected.

To determine systolic or diastolic character of a murmur, pulse at wrist should be carefully noted during auscultation: if systolic, the bruit must be synchronous with pulse, and if most audible at apex, is

indicative of mitral disease; if diastolic, not synchronous with pulse, and most audible over centre of sternum and along course of aorta, it denotes aortic disease.

Treatment. Three indications to be followed:—(1) To abate inordinate action by cautious use of sedatives. Digitalis. Hydrocyanic acid. Aconite. Belladonna. Conium. Henbane. Hop. Opium, or morphia. (2) To ward off or relieve results of cardiac disease,—as pulmonary congestion, pneumonia, hæmorrhage, congestions of liver and kidneys, dropsy &c. A nutritious diet. Saline purgatives,—Sulphate of soda, 144. Cream of tartar and buchu, 222. Cream of tartar and taraxacum, 228. Diuretics,—Squills and digitalis, 219, 224. Potash and digitalis, 220. Urea, 225. Elaterium, 157. Resin of podophyllum, 160. Gamboge and blue pill, 174. Digitalis and calomel, 230. Small punctures at various parts of anasarcous legs. (3) To impart strength and tone to heart. Nourishing food. French, German, or Hungarian wines. Warm clothing. Cod liver oil. Ferruginous tonics,—Quinine and steel, 380. Steel and glycerine, 392. Steel and pepsine, 394. Saccharated carbonate of iron, 396. Steel and ammonia, 401. Phosphate of iron, 405. Tepid salt-water sponge baths, 127.

CARDIALGIA.—From Καρδία, the heart; ἄλγος, pain. Synon. *Heartburn.*—The uneasiness is popularly believed to be around the heart.—See *Gastralgia.*

CARIES.—From *Caries*, rottenness. Synon. *Ulceration of Bone.*—A disease of bone, characterised by an unhealthy inflammation, softening, and molecular disintegration; accompanied by suppuration of surrounding soft tissues. Most frequently attacks the vertebræ, short bones, or cancellated extremities of long bones (as tibia). Frequently due to scrofula, syphilis, abuse of mercury. When caused by syphilitic taint, or by combination of syphilis with abuse of mercury, cranial bones often affected.

Symptoms. Commonly obscure at first; apt to be attributed to rheumatism. Deep seated pain. Redness and swelling of tissues over affected part. Abscess, which on bursting discharges a fetid sanious pus loaded with bony granules. On introducing a probe, it easily passes to the bone and sinks into it. Fistulous openings. Constitutional disturbance.

Treatment. Eradication of constitutional disorder. Tonics; nourishing food; cod liver oil; sea air. Iodide of potassium and bark, 31. Iodide of iron, 32. Chemical food, 405. *Locally:*—Great cleanliness. Astringent lotions and injections. Other remedies failing, removal of diseased portion of bone. Escharotics (potassa fusa, chloride of zinc,) where use of knife is contra-indicated.

CATALEPSY.—From Καταλαμβάνω, to restrain, or hold firmly. Synon. *Hysteria Cataleptica.*—A sudden suppression of consciousness and volition; patient remaining during attack in same position in which she happens to be at commencement, or in which she may be

placed during its continuance. Seizure may last a few minutes, several hours, or one or two days. Recovery occurs suddenly, as from a deep sleep, without recollection of what has occurred. Nervous and hysterical women suffer from these attacks more frequently than other persons. Danger absent: very rarely the disease ends in apoplexy or insanity, possibly when connected with chronic softening or with tumour of brain.

Absence of mind a slight form of catalepsy. True mesmerism another variety. The disease has sometimes been endemic.

For treatment see *Hysteria*.

CATARACT.—From Καταῤῥάσσω, to confound; because the sense of vision is confounded or obscured, if not destroyed (Mayne).—Consists of an opacity of the crystalline lens, or of its capsule, or of both; the effect being to intercept the rays of light on their way to the retina. Three forms usually recognised, according to situation of opacity—viz., lenticular, capsular, and capsulo-lenticular.

Symptoms. Hard or lenticular cataract of old people, the most common form. Met with in men and women, between fifty and seventy years of age. Causes objects to appear as if obscured by a thick cloud or gauze: allows vision to be most clear when pupil is dilated, as by use of atropine or belladonna, or by light being dull and subdued. In advanced cases vision reduced simply to perception of light from darkness. Commonly one eye first affected, and then the other. Movements of iris natural: when pupil is dilated by belladonna, cataractous opacity can be distinctly seen with a convex glass of about one inch focus. In commencing cataract, lenticular opacities not otherwise perceptible may be seen with the ophthalmoscope as opaque striæ, occupying either the anterior or posterior segment of the lens, and springing from the centre of the crystalline, or converging towards the centre from the circumference (Ernest Hart).

Soft or lenticular cataract of young people, may occur at any time of life. Congenital cataract of this kind. Due to disintegration of whole substance of lens, which becomes opaque and swollen. Symptoms much the same as of hard kind, except perhaps that vision is more imperfect. There appears to be some connection between diabetes and soft cataract.

Capsular cataract may result from chronic inflammation. Opacity of a dead white colour; commonly affects part or whole of anterior wall of capsule, or it may perhaps be confined to posterior portion.

Opacity of capsule always leads to opacity of lens, so that capsulo-lenticular cataract is common.

Treatment. One of three operations:—(1) *Depression, displacement*, or "*couching*," a clumsy and generally inefficient proceeding by which the lens is pushed from its natural position, so as to allow rays of light to pass through pupil to retina. (2) *Solution*, or *absorption*, in which the body of lens is broken up, at several sittings, so that it may undergo absorption. Only suitable for soft cataract. (3) *Extraction*, in which opaque lens is removed entire through an incision in the cornea.

CATARRH.—From Καταῤῥέω, to flow down little by little. Inflammation of mucous membrane of some portion of air-passages. Known as *coryza*, if it affect Schneiderian membrane of nose; *gravedo*, if frontal sinuses suffer; *bronchitis*, when stress of disease falls on trachea and bronchial tubes.—Catarrh, as affecting mucous lining of nose and throat, one of the commonest of diseases.

Symptoms. Lassitude; pains in limbs; aching of back; sense of tightness across forehead; excessive discharge from nostrils; profuse lachrymation; hoarseness; sore throat; furred tongue; more or less feverishness; thirst; loss of appetite; quick pulse. An eruption of herpes appears upon lips; most frequently about angles or middle of lower lip.—At end of some forty-eight hours symptoms begin to subside; or disease passes into a more severe affection,—acute tonsillitis, bronchitis, pneumonia, &c.

Treatment. Warm bath. Foot bath. Turkish bath. Powder of ipecacuan and opium. Warm clothing. An extra glass or two of wine. White wine whey at bed-time.

CELLULITIS VENENATA.—From *Cellula*, a little cell; terminal *-itis: Venenum*, poison or venom. Synon. *Diffuse Cellular Inflammation.*—Diffused inflammation of the areolar tissue; arising from one or more punctures received in dissecting the dead body, or from bites of venomous reptiles, &c. May occur without septic inoculation in unhealthy states of system, from breathing vitiated air, &c.

Symptoms. Erysipelatous inflammation of areolar tissue and absorbents. Skin secondarily involved. Redness and tenderness of lymphatics. Rigors. Pain. Offensive perspiration. Suppuration. Gangrene. Delirium. Jaundice. Dyspnœa. Stupor. Fatal exhaustion.

Treatment. Withdrawal of poison by suction or cupping glass. Ligature between wounded part and trunk. Caustic. Bark, 371, 376. Quinine, 379, 386. Sulphite of magnesia, 48. Chlorate of potash, 61. Tincture of perchloride of iron and glycerine, 392. Brandy and egg mixture, 17. Fomentations. Poultices. Incisions. Leeches?—See *Ichorhæmia.*

CEPHALALGIA.—From Κεφαλή, the head; ἄλγος, pain. Synon. *Cephalodynia; Dolor Capitis.*—See *Headache.*

CEPHALOHÆMATOMA.—From Κεφαλή, the head; αἱμάτωμα, a sanguineous tumour. Synon. *Cephalæmatoma; Ecchymoma Capitis Recens Natorum; Thrombus Neonatorum.*—A bloody tumour, developed immediately after birth, between bones of skull and pericranium. It is probably caused by long-continued pressure upon fœtal head during a difficult labour.

Symptoms. Tumour varies in size from that of a hen's egg to that of a large orange. Is generally formed on one or other of parietal bones: on right more frequently than left; and occasionally on both—double cephalohæmatoma. Swelling soft, circumscribed, and fluctuating: its base often becomes encircled by a hard ring, probably

caused by occurrence of ossification in the plasma exudation which is poured out by irritated pericranium.

Treatment. Generally best to leave the case alone: effusion becomes absorbed in course of two or three weeks. In some instances, absorption may be hastened by use of evaporating lotions. Avoid the practice sometimes recommended of incising tumour, removing blood, and applying compression. Should suppuration take place, the pus must be evacuated, and case treated as a dangerous abscess.

A kind of false cephalohæmatoma sometimes produced by effusion of blood into areolar tissue between aponeurosis of scalp and pericranium. It requires no treatment.

CEREBRAL HÆMORRHAGE.—From *Cerebrum*, the brain: Αἷμα, blood; ῥέγνυμι, to break out.—Not synonymous with *apoplexy*. There may be symptoms of latter, but not necessarily. Pathognomonic feature, more or less paralysis on side of body opposite to that on which clot is formed. Intellect and senses may be unaffected. Patient may fall down; but this results from the paralysis, not from the sudden abolition of consciousness and sensibility as in apoplexy. In same way there may be sudden loss of power in arm, or speech may be affected, but without loss of consciousness. If hæmorrhage continue, then symptoms may gradually merge into complete apoplectic condition in course of a few minutes or several hours. Many cases of cerebral hæmorrhage recover, provided recourse be not had to active treatment. Patient is not seen until after the effusion: bloodletting and purgatives powerless to remove clot, or to prevent further escape of blood. Rest in sitting posture, with a nutritious but unstimulating diet, will effect all that is possible.

CEREBRAL INFLAMMATION.—The study of brain diseases hardly sufficiently advanced to permit of a certain diagnosis between inflammation of substance of brain (*cerebritis*), and that of membranes (*meningitis*). Distinction not of great importance. In only a few instances does meningitis, or cerebritis, occur alone. In majority of cases the two affections are combined (*encephalitis*).

1. Simple Meningitis.—From Μῆνιγξ, a membrane; terminal *-itis*. Synon. *Encephalitis Membranosa.*—Inflammation of arachnoid and pia mater may arise without apparent cause; or may be produced by a fall or blow, by extension of disease from ear or nose, or by exposure to the sun. May also arise from poison of syphilis or rheumatism: from deposit of tubercle (see *Tubercular Meningitis*).

Symptoms. Fever. Acute pain in head. Irritability, with early and violent delirium. Frequent flushings of face, followed by pallor. Rapid pulse. Muscular twitchings. Prostration, and coma.

Inflammation of membranes over convexity of brain:—First, a rigor; or in children, a convulsion. Then, skin gets hot and dry; pulse hard and rapid; bowels confined. Intense headache, increased by sound or movement. Face alternately flushed and pallid; conjunctivæ injected, eyes suffused and staring. Noisy and violent delirium sets in early. Great restlessness; muscular twitchings;

strabismus. Vomiting. At end of three or four days, fever lessens; pulse flags; tongue gets brown and dry; excitement diminishes; delirium apt to pass into coma. In a few days more, intense prostration. When disease ends favourably, improvement very gradual: no critical sweat or diarrhœa.

Meningitis confined to base:—Diagnosis very difficult. Sometimes, delirium at commencement; great fever; contracted pupils; raving; frequent pulse; clenching of teeth; and retraction of head. Coma. Death, as from apoplexy. In other cases, pain in temples; vomiting; constipation; wry-neck; loss of appetite; a desire for repose. After a few days, vacant look; dejection; intelligence clear; pulse and skin natural. Headache, unrelieved. Coma, ending in death.

Inflammation of dura mater:—Frequently the result of violence: of disease of cranial bones, particularly of petrous portion of temporal or of ethmoid. Chronic affections of ear and nose in children, regarded as trifling, may end fatally by rapid extension of morbid action to dura mater.

Treatment. See *Acute Encephalitis.*

2. Cerebritis.—From *Cerebrum*, the brain; terminal *-itis.*—Partial inflammation of brain substance without meningitis. Of rare occurrence.

Symptoms. Persistent, deep-seated pain in head; general malaise and vomiting; impairment of vision and hearing; confusion of ideas, with failure of memory; convulsive paroxysms, ending in paralysis or coma. Mental disturbance varies considerably according to part of brain affected. After three or four days there may be a copious effusion of serum: symptoms of compression. Sometimes, inflammation ends in abscess; suppuration occurring without exciting any suspicion.

Treatment. See *Acute Encephalitis.*

3. Acute Encephalitis.—From Ἐγκέφαλος, that which is in the head; terminal *-itis.* Synon. *Meningo-cerebritis; Phrenitis.*—The inflammation gives rise to more or less complicated phenomena during life, according to degree and extent to which brain and its membranes are involved. After death, traces of its power are found in form of meningeal congestion, with effused lymph or serum or pus; appearances of vascularity, varying from bloody points, or a scarlet tinge, to a dusky redness about affected part of brain; with occasionally softening, or suppuration of cerebral substance.

Symptoms. Earliest indications, fever; nausea and vomiting; acute headache; sharp and hard and irregular pulse; constipation; impatience of light and sound; watchfulness; a look of oppression or sullenness; suffusion of eyes; confusion of thought or even delirium. These symptoms most marked when meningitis predominates.—After from twelve hours to two days, second stage of the complaint sets in —period of collapse. State of stupor; articulation difficult or indistinct; vision and hearing dull; pupil—from having been contracted to a pin's point—becomes dilated; perhaps squinting, and paralysis of muscles of eyelids; frequent twitchings of muscles; ghastly

countenance; sordes on gums and teeth; cold sweats; relaxation of sphincters; convulsive paroxysms, paralysis, and profound coma, which usually soon ends in death.—Occasionally the first symptom, a sudden attack of convulsion; perhaps occurring without previous illness, or preceded by headache and slight complaints which have passed on unnoticed. Convulsion generally long and severe: may be followed immediately by coma, which is soon fatal; or it may recur frequently at short intervals, and pass into coma at end of twenty-four hours. When nausea and vomiting are earliest symptoms, disease has probably had its origin in cerebral pulp; when attack begins with a convulsion, the inflammation has started from arachnoid or pia mater (Watson).

In all forms of this dangerous complaint, symptoms variable. Caution necessary against insidious character which many cases assume, and deceitful appearances of amendment. Disease rare. May end fatally in a few hours, or patient may struggle on for two or three weeks.

Treatment. Calomel and jalap, followed by sulphate of magnesia, 140. Jalap and senna, 151. Calomel and scammony, or jalap, 159. Antimony and sulphate of magnesia, 152. Croton oil, 168. Castor oil and turpentine enema, 190. "More recoveries from head-affections of the most alarming aspect take place under the use of very strong purging than under any other mode of treatment" (Abercrombie). Iodide of potassium (grs. 3 to 8 every four or six hours). Tincture of aconite. Milk diet. Head to be shaved. Pounded ice in a bladder, to scalp; or cold evaporating lotions, 273. Excess of temperature reduced, and excitement calmed, by pouring cold water in a stream upon vertex of head. It must be remembered that cold to head exercises a very depressing influence: hence, case must be carefully watched. As soon as extreme collapse sets in from exhaustion of nervous force, stimulants will be needed. Ammonia. Spirit of ether. Brandy or wine. Strong beef tea. Milk or cream.

Remedies sometimes employed:—General and local bleeding. Drastic purgatives, long continued. Antimony. Mercury. Digitalis. Opium combined with antimony. Blisters, or ointment of tartarated antimony to scalp, after shaving. Mustard pediluvia.

4. Chronic Encephalitis.—May follow acute inflammation: more frequently an independent primary disorder.

Symptoms. Of a sub-acute character. Very diversified: allied to those which mark commencement of insanity. Great mental excitement, or depression. Delusions. Hesitation in speaking, or slight stammering. Stiffness of some muscles. Slight headache. Loss of appetite. Constipation. Irregularity of pulse. Subsequently, symptoms become more marked: memory fails, external senses get impaired, paralysis, break up of general health. Disease may last for only a few months, or for years.

Treatment. Attempts to combat symptoms as they arise. Hygienic measures to improve general health. Attention to digestive and uterine organs. Cod liver oil. Small blisters behind ears,

often repeated. A seton in nucha. Sometimes, inunction of shaved scalp with iodide of potassium, or red iodide of mercury, ointment.

5. Softening, Induration, and Tumours of Brain.—General symptoms of *cerebral softening:*—More or less severe and persistent pain in head. Sudden and short attacks of vertigo. Diminution of intellectual power, embarrassment in answering questions, depression of spirits, tendency to shed tears on any excitement. Prickings and twitchings in limbs, perhaps pain or numbness. Tendency to sleep, especially after meals. More or less impairment of vision and hearing. In inflammatory softening, headache more acute than in other forms; limbs become the seat of painful cramps, stiffness, or contractions; paralysis with spasm not uncommon; permanent contraction of flexor muscles of one or both extremities; general sensibility more acute.—In second stage of either inflammatory or non-inflammatory form:—Paralysis of a limb, or of one half of body, coming on suddenly without loss of consciousness. Patient easily confused; has a difficulty in answering questions, and in making himself understood. Feebleness; weak and intermitting pulse. Vomiting and constipation. Difficulty in emptying bladder. Involuntary escape of stools. Respiration laboured; at last becomes stertorous. Coma, ending in death. Disease most common after fiftieth year.

Acute Ramollissement (from *Ramollir*, to make soft), or *red softening* of brain, one of the terminations of inflammation. Softening usually partial; affected portion reduced to consistence of cream. Symptoms, as described in preceding paragraph. When resulting from acute inflammation, parts which usually suffer are,—corpus callosum, septum lucidum, fornix, and cerebral substance around ventricles. Softened structure sometimes infiltrated with pus: occasionally, purulent matter contained in a well-defined cavity—*abscess of the brain.*

White softening occurs from conditions the opposite to those of inflammatory form. Met with in aged persons. Insufficient supply of blood to brain; owing to disease of cerebral arteries, or obstruction by fibrinous masses. Probably leads to fatty degeneration of brain tissue. Portions most frequently affected,—grey matter of convolutions at base, optic thalami, corpora striata.

Softening of cerebellum:—Attended with fixed pain at back of head, especially on diseased side. Occasionally, amaurosis; hemiplegia or paraplegia; a tendency to walk backwards; tottering gait; vertigo; semi-convulsive agitation of limbs; obtuse hearing; aphonia. No two cases exactly alike. Abscess of cerebellum sometimes due to disease of ear and mastoid cells.

Induration of brain:—Termination of acute or chronic inflammation. Indurated portion of small extent: presents appearance of wax, or white of egg boiled hard.

Simple and malignant *tumours, deposits of tubercle, syphilitic gummatous growths,* and *hydatids* have been found in brain. Indications of such very obscure. Most frequent symptoms,—headache, sickness, giddiness, mental depression with confusion, partial paralysis, epileptiform convulsions.

6. Tubercular Meningitis.—Synon. *Acute Hydrocephalus; Water Brain Fever.*—Acute inflammation of brain not uncommon in *children* under five years of age. The disease may occur in those previously healthy, when it is a form of *simple* encephalitis. Most frequently the children are scrofulous; the inflammation being a result of tubercular deposit in brain or membranes. It is then known as *tubercular* meningitis. Formerly named acute hydrocephalus.

Symptoms. Various and uncertain. For convenience can be divided into three stages. *First* or *premonitory stage*:—Indications of mal-nutrition. Signs of strumous diathesis. Short dry cough; peevishness; intolerance of light and sound; headache, giddiness, and other warnings of cerebral congestion; fever, with exacerbations and remissions; capricious appetite; tongue furred, and breath offensive; sickness and constipation. Child drowsy, yet restless; moans or grinds his teeth; wakes in alarm and screams; frequently, becomes delirious.

After four or five days *second stage* reached. Child wishes to be left quiet. Countenance alternately flushed and pale, expressive of suffering; eyes closed and eyebrows knit. If old enough to reply to questions, complaint made of headache and weariness and sleeplessness: frequent exclamations—"Oh my head." Pulse gets irregular; diminishes in frequency, perhaps falling from 120 to 80. Remission of all symptoms. Amendment of short duration. Stupor and heaviness come on. Squinting. Child lies insensible, probably picking his nose and lips with tremulous fingers. Convulsions: perhaps paralysis. Urine and fæces passed unconsciously.

Transition to *third stage*, at end of a week or two, effected gradually by drowsiness passing into profound coma. Pulse gets very feeble, extremities lose their warmth, cold clammy sweat breaks out. Paralysis, perhaps convulsions. Sometimes death does not occur for several days.

Most diseases of the brain in children which interfere with cerebral circulation, impede more or less the venous circulation in the eye. Hence, in tubercular meningitis characteristic appearances may be observed at fundus of eyeball, by ophthalmoscope, before convulsive period sets in. These are,—(1) Peripheral congestion of papilla, with spots of congestion in retina and choroid. (2) Dilatation of retinal veins around papilla. (3) Varicosity and flexuosity of these veins. (4) Thrombosis of same. And (5) in some instances, serous infiltration with retinal hæmorrhages from rupture of veins (Bouchut).

Tubercular meningitis in *adult* usually preceded by history of previous lung affection. Amelioration of chest disease. Symptoms may early assume an apoplectic or a convulsive form. More frequently they come on gradually with vomiting, slight fever, acute pain in head; patient seems unable to collect his thoughts, is peevish and irritable, desires only to be left quiet; there may be mutism and somnolence; pulse irregular and feeble. In second stage, depression increases; greater mental dulness or delirium; clonic or tonic spasms. In third stage, sphincters relax; increasing stupor; paralysis; death.

Treatment. Bowels to be cleared out by calomel and jalap.

Iodide of potassium, with small doses of tincture of aconite, according to age. Cold evaporating lotions to head, 273. If child be teething, employ gum lancet when gum is tender and hard and swollen. Where there is depression of vital powers use stimulants,—ammonia, ether, port wine. If symptoms be subacute, hypophosphite of lime or soda and bark. Cod liver oil. Sea air. Pure milk.

7. Hypertrophy and Atrophy of Brain.—*Hypertrophy* of cerebral hemispheres has occurred in children: more common between 20 and 30 years of age. If skull increases as brain gets over-developed there may be an absence of symptoms, until a sudden attack of convulsions ends in death. When bony case does not enlarge, there are necessarily indications of compression: mental disturbance, varying from slight dulness of intellect to complete idiotcy. Headache; vertigo; loss of muscular power or paralysis; unaltered or very slow pulse; severe epileptic convulsions. Death in latter, or from subsequent coma.

Atrophy may vary from a complete absence of cerebral hemispheres incompatible with extra-uterine life, to a simple incomplete development of certain convolutions above ventricles. When atrophy affects one side only, life may be uninterfered with for some time.

CHAPPED HANDS.—May be due to imperfect drying after washing; to use of irritating substances,—common yellow soap &c.; to cold; to wearing coarse woollen gloves which fret the hand when moist from perspiration.

Treatment. Thorough drying after washing. Dusting with powdered starch; spermaceti; white bismuth; oxide of zinc; carbonate of zinc. Glycerine soap. Pure honey soap. Glycerine and water—equal parts. Collodium. Ointment of oxide of zinc. Ointment of carbonate of lead. Ointment of subacetate of lead. Ointment of spermaceti. Diluted citrine ointment, 305. Ointment of balsam of Peru and spermaceti, 306. Lotion of nitrate of lead (gr. 10 to fl. oz. j).

CHICKEN-POX.—Synon. *Varicella.*—A trifling infectious complaint, almost peculiar to infants and young children. Runs through all its phases in six or eight days. Consists of an eruption of pimples, which on second day become converted into transparent vesicles surrounded by slight redness. Rash commences on shoulders and back, and afterwards affects the scalp, but often spares the face: about fourth day the vesicles form small scabs, which rapidly desiccate. No constitutional disturbance of importance: accompanying pyrexia slight.

Occurs but once to same person. Has a short incubation, probably of four days. Requires no treatment beyond attention to bowels, and restricted diet. Quinine, bark, steel wine, or cod liver oil may be needed during convalescence.

CHILBLAIN.—From the Saxon *Cêle*, cold; *blégen*, a boil or ulcer; *i.e.* a blain caused by chilliness or cold (Mayne). Synon. *Pernio.*—A

subacute inflammatory swelling, due to cold and the premature restoration of the circulation by heat.

Symptoms. A feeble circulation,—cold feet and hands. In the first stage, swelling and slight redness and pain or itching; in the second, vesication; in the third, ulceration or sloughing. Parts most exposed, and where circulation is weakest, most prone to suffer. Occurs in weakly constitutions, strumous children.

Treatment. Bark and port wine. Milk: nourishing food. Cod liver oil. Chemical food, 405. Fire in bed-room. Warm stockings and gloves. Avoidance of tight shoes. Friction with compound camphor, arnica, soap, opium, or turpentine liniment. Painting with tincture of iodine. To relieve itching, lime liniment or glycerine. When vesication or ulceration occurs, water dressing or poultices; collodium and castor oil varnish, 285; resin or turpentine ointment. Diluted nitrate of mercury ointment. Nitrate of silver.

CHIMNEY-SWEEPER'S CANCER.—A rather uncommon form of epithelial cancer. Very rare in Scotland, France, &c. Produced by irritation of soot lodged in folds of scrotum, in individuals predisposed to cancer. Sometimes hereditary.

Symptoms. Commence as a tubercle or wart. After a variable interval, a fungous sore with ragged edges forms; which spreads and causes great pain, and presents all the frightful characters of malignant ulceration. Superficial inguinal glands do not invariably become secondarily affected. General health breaks down. Death sometimes hastened by hæmorrhage.

Treatment. Destruction of the soot-wart by chloride of zinc, or super-sulphate of zinc, or chromic acid. Extirpation. When disease is more advanced, excision may retard its progress; provided inguinal glands have not become involved. Sooner or later there is sure to be a return.—See *Cancer*.

CHLOASMA.—From Χλοάξω, to be of a greenish yellow colour. Synon. *Pityriasis Versicolor; Macula Hepatica; Liver Spot.*—A parasitic cutaneous disease.—See *Tinea*.

CHLOROSIS.—From Χλωρὸς, green. Synon. *Pallor Virginum; Green Sickness.*—A peculiar form of anæmia, affecting young women about the age of puberty. The red blood corpuscles are pale, small, and diminished in number. The serum is in excess.

Symptoms. Wax-like hue of countenance. Pallor of skin, whence popular name of "green sickness." Deficient or depraved appetite. Constipation. Abundant limpid urine. Weak quick pulse. Hysteria. Pale scanty menstrual discharge. Leucorrhœa. Listlessness. Headache. Palpitations. Backache. Cardiac and vascular murmurs. Enlargement of thyroid. Protrusion of eyeballs.

Treatment. Good living. Pure air. Sea bathing. Chalybeates. Aloetic aperients.—See *Anæmia*.

CHOLÆMIA.—From Χολή, bile; αἷμα, blood.—The morbid state in which bile exists in the blood, owing to its re-absorption after having been formed by the liver.—See *Jaundice.*

CHOLERA.—From Χολὰς, the bowels, and ῥέω, to flow; or, according to some authors, from Χολή, bile, and ῥέω, because the disease is said to arise chiefly from a superabundance of acrid bile. Synon. *Epidemic, Malignant, Asiatic,* or *Algide* (*Algeo,* to be cold) *Cholera.*—An epidemic disease of such severity that it often proves fatal in a few hours; attended with prostration, coldness and lividity of surface, vomiting, purging, suppression of urine, and cramps of muscles of abdomen and extremities. Sometimes preceded by simple diarrhœa: more frequently comes on suddenly without warning.

Symptoms. Presents three stages:—(1) Diarrhœa and vomiting, probably efforts of nature to expel morbid poison (cholerine) from system. (2) In addition, contracted pupil, spasms, cramps, coldness of body, and intermitting pulse. (3) Suppression of urine: collapse.

In detail these symptoms are:—Copious vomiting, in most cases. Purging, in most cases: stools consist of an abundance of water, a large quantity of epithelium (imparting a rice-water appearance), a little albumen, a trace of biliary matter, and a large amount of salts (especially chloride of sodium). Severe cramps in lower extremities and abdomen, rendering muscles as hard as wood, or drawing them into knot-like masses. Perhaps albuminuria, followed by suppression of urine. Urgent thirst. Diminished circulation and impeded respiration: hence, intense prostration, icy coldness of surface and tongue and breath. Lividity or blueness of lips and skin generally. Unnatural and whispering voice. Shrinking of whole body. Pinched features: muddy-looking complexion: sinking of eye, with contracted and immobile pupil, and flattening of cornea:—the whole so peculiar that the expression is spoken of as the *facies choleritica.* Notwithstanding coldness of surface, complaint is made of oppression: patient often likes to lie uncovered. There soon follows a gradual lessening of breathing; a thread-like pulse; a clear intellect; and a complete arrest of circulation.—Patients who survive eighteen hours frequently show signs of amendment: occasionally get well rapidly; pulse rising, and rice-water evacuations being replaced by stools containing bile. But often, improvement only transient: stools, though less frequent, are free from bile; suppression of urine continues; and death is preceded by headache, drowsiness, tonic or clonic spasms, vomiting, stertor, and coma. In more favourable cases, a mild febrile exacerbation follows and subsides gradually in a few days: or this consecutive fever is of a more severe type, and a low typhoid condition follows.

According to Dr. Barraut a contracted and immobile pupil precedes all other phenomena: then, suppression of urine: next an intermitting pulse, followed by thread-like peculiarity.

Treatment. *Prophylactic:*—Sanitary laws to be strictly obeyed. Avoidance of all doubtful food and impure water; of too long abstinence from food; of purgative medicines; of over-fatigue; of intem-

perance, uncleanliness, and of breathing vitiated air. Any tendency to diarrhœa (as distinguished from premonitory diarrhœa) to be checked by recumbent position; warm bath; sinapisms or linseed poultices to abdomen; mucilaginous drinks; very plain food; and simple astringents, ether, or spirit of chloroform.

Curative:—Only three points seem certain:—The purging is not to be checked; opium is most injurious; and the patient is to have cold water, or soda water, and ice ad libitum.

Dr. William Stevens' plan was more successfully used than any other, on a large scale, in the prison of Coldbath-Fields, during 1832:—Patients presenting premonitory symptoms were removed into an observation ward, where an even temperature was constantly maintained. A Seidlitz powder was immediately given: if sinking were felt without purging, three or four teaspoonfuls of sulphate of magnesia were added to powder. These agents acting freely, plenty of thin and well-salted beef-tea was given: thirst was relieved with seltzer, soda, or pure water without stint: if there were any pains a sinapism was applied over gastric region. Most of the cases were thus cured.—If, however, cramps, coldness, or sinking of pulse came on, the following was given about every half-hour:—Chloride of sodium, gr. 20; carbonate of soda, gr. 30; chlorate of potash, gr. 7; —dissolved in water. If much irritability of stomach existed, a large sinapism was applied; if much heat or burning pain, an additional quantity of carbonate of soda was added to mixture.—In cases in stage of collapse, a strong solution of same salts, dissolved in hot water (100° F.), was thrown into rectum, and repeated every two or three hours. Sinapisms to stomach and between shoulders. Frictions with warm towels. Air of ward kept perfectly pure.

Dr. A. C. Macleod, after twenty years of Indian practice, recommends:—Calomel, in ten grain doses, every half or even every quarter of an hour. A large blister to loins. Diffusible stimulants, regulated by state of pulse. Draughts of cold water ad libitum. Hot water bottles to feet. Assiduous rubbing, by three or four attendants, of abdomen and extremities with cajuput oil: while in intervals of friction, the abdomen is to be covered with spongio-piline sprinkled with the oil.

According to the Cholera Report of the Royal College of Physicians (London, 1854) no appreciable effects followed the administration of calomel, even after a large amount in small and frequently-repeated doses had been administered. For the most part it was quickly evacuated by vomiting or purging, or if retained was afterwards passed from bowels unchanged.

All authorities agree that patient should be isolated as far as possible. To be surrounded with pure air. To avoid all water drawn from a well near any sewer. To have excretions received in a pan containing some disinfectant fluid, and to be immediately thrown away. Great caution with regard to diet during convalescence. Broths and farinaceous substances, without any solids whatever, until the biliary and renal secretions have been fully re-established, and all symptoms have vanished.

Remedies which have had strong advocates:—Bleeding. Emetics.

Purgative enemata. Astringent, and opiate enemata. Injections of warm water, or of saline solutions, into veins. Inhalation of oxygen gas. Sulphur. Sulphuric acid. Nitric acid. Nitro-hydrochloric acid. Quinine. Ipecacuanha. Indian hemp. Opium. Belladonna. Subcutaneous injections of atropine. Brandy. Cajuput oil. Castor oil. Croton oil. Creasote. Carbolic acid. Chloroform. Ether. Sugar. Acetate of lead. Logwood. Nitrate of silver. Infusion of Mikania Guaco. Petroleum. Phosphorus. Sumbul. Turpentine. Inoculation with quassia. Wet-sheet packing. Cold affusion. Hot air baths. Vapour baths. Hot water baths. Mustard baths. Ice to spine. Galvanism. Actual cautery along spinal column. Vesication with boiling water. Acupuncture of heart.

CHOLESTERÆMIA.—From Χολὴ, bile; στερεὸς, solid; and αἷμα, blood.—Blood-poisoning, owing to the non-elimination of cholesterine by the liver.—See *Acholia.*

CHOREA.—Χορεία, a dancing or jumping; from Χορὸς, a dance accompanied with singing. Synon. *Chorea Sancti Viti; St. Vitus' Dance.*—A disease characterised by irregular, tremulous, and often ludicrous actions of voluntary muscles, especially those of face and limbs; there being incomplete subserviency of affected muscles to the will. Has been called "insanity of the muscles."—Mostly attacks girls between sixth and fifteenth years, though not uncommon in boys.

Symptoms. At commencement, slight clonic spasms of facial muscles. By degrees almost all voluntary muscles affected. Child cannot keep quiet, though movements are to some extent under control of will: constant restlessness of hands and arms, perhaps of legs, most marked when patient sees she is watched. Features curiously twisted and contorted: vacancy of countenance. Articulation impeded. Temper irritable. Irregular appetite. Perhaps constipation. One half of body usually more affected than the other: disease may be confined entirely to one side—hemichorea. During sleep, irregular actions cease.

During progress, endocarditis or pericarditis may supervene. An anæmic murmur sometimes audible at base of heart. Or an organic murmur at apex. Rheumatic fever may precede, accompany, or follow chorea. Rarely terminates in epilepsy.

Treatment. Nourishing food and general care will cure many cases. Regulation of bowels, and of uterine functions if patient has reached the age of puberty. Saccharated carbonate of iron, 396. Steel and ammonia, 401. Steel and arsenic, 399. Quinine, steel, and arsenic, 381. Steel and zinc, 414. Oxide of zinc, 415. Chemical food, 405. Hypophosphite of soda or lime, with bark, 419. Cod liver oil, 389. Nutritious diet: milk. Cold shower bath. Sea bathing. Exercise in pure air. Gymnastic exercises. Avoidance of mental excitement, long lessons &c.

Remedies sometimes recommended:—Valerianate of ammonia. Iodine. Calabar bean. Nitrate of silver. Sulphate of copper. Belladonna. Atropine. Indian hemp. Stramonium. Strychnia.

Turpentine. Assafœtida. Salts of cerium. Inhalation of chloroform. Sulphur baths. Galvanism. Blisters to spine.

CHOROIDITIS.—From Χόριον, skin; εἶδος, shape; terminal *-itis*.—Inflammation of the choroid,—the second, or vascular and pigmentary, tunic of the eyeball. Rarely or never seen alone: inflammation rapidly spreads to neighbouring textures of eye, producing disorganization, &c.

Symptoms. Intolerance of light, lachrymation, dimness of vision, and supra-orbital pain. Engorgement, more or less extensive, of conjunctival vessels. Displacement of pupil. Thinning of sclerotic, so that choroid is seen through it (staphyloma scleroticæ). Opacity of cornea. Enlargement of globe: sometimes suppuration and formation of fungous growths.

Treatment. Aperients. Calomel and opium. Arsenic. Warm baths and fomentations. Blisters to nape of neck. Leeches. Tartar emetic ointment to temples.

CHYLOUS URINE.—From Χυλὸς, the nutritive juice formed by digestion,—chyle. Synon. *Chyluria; Galacturia; Chylodiabetes; Chylorrhœa Urinalis.*—The excretion of urine of a milky appearance from the presence of fatty matter in a molecular state. In addition, there is generally present one or more of following,—blood corpuscles, fibrin, albumen, and an imperfect albumen (albuminose?). The urine after standing a short time, and sometimes whilst in the bladder, coagulates into a trembling mass resembling blancmange or common size. Mostly met with in natives of East and West Indies, Mauritius, Brazil &c.

Symptoms. Lassitude. Pains about loins and epigastrium. Mental anxiety. Debility, and loss of flesh. Attacks intermit: urine healthy for months, and then chylous for months.

Treatment. Gallic acid (gr. 20—80 thrice daily). Decoction of mangrove bark (Rhizophora racemosa). Tincture of perchloride of iron. Quinine and steel. Ammonio-citrate of iron. Cod liver oil. Opium. Turkish baths. Salt water baths. Tight belt worn round loins. Change of air,—a bracing temperate climate. Nourishing diet.

CIRRHOSIS OF LUNG.—From Κιῤῥὸς, yellowish or tawny.—A consolidation or contraction of more or less of pulmonary tissue, accompanied with dilatation of bronchi.—See *Pulmonary Condensation.*

CLITORITIS.—From Κλητὴρ, ῆρος, one who calls or invites; terminal *-itis*. Synon. *Inflammatio Penis Muliebris.*—The clitoris occasionally attacked with subacute inflammation; leading to great hypertrophy, or to cystic degeneration. May also be excessively developed, from some congenital malformation. Sometimes, the seat of cancerous infiltration. Entire organ found diseased, or only its prepuce.

Clitoris occasionally becomes indurated, with or without enlargement. Said to be due to self-abuse. The organ frequently amputated to cure this practice, but with very doubtful benefit.

CLUB-FOOT.—Synon. *Talipes;* from *Talipedo* (talus and pedo), to walk on the ankles.—A gradual change in the form and positions of the tarsal bones, owing to undue action of certain muscles. May be congenital or acquired. One or both feet affected. Four principal varieties:—

1. Talipes Equinus.—A rigid contraction of tendo Achillis, so that the heel cannot be brought to the ground, and the patient walks on the metatarsal bones. Horse-heel sometimes occurs during first dentition. When congenital—*i.e.* not caused by irritation of teething, worms &c.— a cure is generally effected by subcutaneous division of tendo Achillis.

2. Talipes Varus.—The heel is raised, inner edge of foot drawn upwards, and outer edge rests on the ground. In extreme cases, patient walks on dorsum of foot and outer ankle. There is contraction of muscles of calf and adductors of foot. The tendons of tibialis anticus and posticus, as well as that of flexor longus digitorum, have to be divided; and subsequently the tendo Achillis.

3. Talipes Valgus.—The reverse of T. Varus. Outer edge of foot drawn upwards, so that patient rests on inside of instep and inner ankle. Chiefly due to contraction of tendons of peronei muscles, which have therefore to be cut.

4. Talipes Calcaneus.—Elevation of toes with a falling of heel, so that patient walks on latter. Owing to paralysis of muscles of calf, there is no counteraction to contraction of those of anterior tibio-fibular region. Tendons of tibialis anticus, long extensors of toes, and peroneus tertius may all need section before the foot can be brought to proper position.

Mixed or *compound varieties* of foregoing not uncommon. Their nature explained by the names:—Talipes equino-varus, T. equino-valgus, T. calcaneo-valgus.

The principle on which subcutaneous tenotomy is resorted to, is simple. The cut surfaces of the tendons heal by connective tissue, which lengthens the tendon and admits of considerable extension while recent.—In some cases a cure can be obtained without operation:—By removal of sources of irritation; fomentations and frictions of rigid muscles; tonics, good food, sea-bathing &c.; anti-rheumatic remedies; and the proper application of wood or gutta percha splints, stiffened boots, india rubber bands, bandages, and other mechanical appliances.

COCCYODYNIA.—From Κόκκυξ, the cuckoo,—because the coccyx is said to resemble the beak of this bird; and ὀδυνη, pain. Synon. *Coccyalgia; Coccygodynia.*—Pain or tenderness about coccyx. After a fall or blow, child-birth, violent horse exercise &c. inflammation may be set up in fibrous tissues around, and muscular attachments to, the coccyx.

Symptoms. Pain on sitting down or rising from chair, on walking, on defecation &c. Can only sit on one hip in many cases. Any movement which stretches coccygeal ligaments, or brings sacro-coccygeal articulation into play, causes suffering: sometimes this is

most severe. Often aggravated by sexual intercourse, by menstrual flow. Tenderness on pressure. Occasionally an accompaniment of uterine or ovarian disease, when it is sympathetic or neuralgic. Disease very chronic.

Treatment. Removal of any uterine or ovarian disease. Improvement of general health. Nervine tonics,—Quinine, iron, arsenic, zinc. Warm hip baths. Leeches. Friction with equal parts of belladonna and mercurial liniments. Subcutaneous injection of morphia, 314. Subcutaneous division of muscles and ligaments and fasciæ connected with coccyx, so as to set the bone at rest. Complete removal of coccyx, or a portion of it.

COLIC.—From Κῶλον, the large intestine. — Characterised by severe twisting or griping pain in belly, especially about umbilicus, occurring in paroxysms. Pain generally relieved by pressure: never aggravated by it. Often, vomiting. Generally, constipation. An absence of inflammation and fever. While attack continues, pulse is lowered; surface of body cold; countenance anxious.

Attacks of colic due to:—(1) Indigestion, accompanied with flatulence. Relieved by vomiting or purging, or eructation, or expulsion of wind by anus.—See *Flatulence.* (2) The irritation of intestine by morbid secretions, accumulation of fæcal matter &c. Cured by hot brandy and water with spice: castor oil. (3) Fright, cold, hysteria, gout: demanding antispasmodics like ether, chloroform, belladonna, opium; fomentations; perhaps colchicum and opium. (4) Mineral poisons, such as copper, lead &c.—See *Copper Colic*; *Lead Colic.*

Colic not to be confounded with pain of gastrodynia or gastralgia, enteritis and cæcitis; peritonitis; perforation of bowel; strangulated hernia, or ileus; passage of hepatic, or of renal, calculi; spasm of bladder; uterine colic; or with that produced by aneurismal or other tumours of abdomen, disease of spine &c.

COLLOID CANCER.—From Κόλλα, glue. Synon. *Alveolar Cancer* (*Alveolus*, a little trench); *Cystic Cancer* (Κύστις, a bladder).—A variety of cancer, consisting of a clear viscid substance somewhat resembling soft gelatine or gum. Most frequent primary seats—the stomach, intestinal canal, omentum, breast, and peritoneum; secondarily, it affects lymphatic glands, lungs &c. A section of a colloid cancer presents to naked eye a clear, soft, gelatinous mass, intersected and surrounded by tough fibrous-looking tissue; the intersections, when numerous, forming small cysts or cavities filled with colloid matter. Such a cancer often attains considerable size.—See *Cancer.*

COLOUR - BLINDNESS. — Synon. *Achromotopsia; Acritochromacy; Chromato Pseudopsis; Daltonism.*—The inability to discriminate between certain colours is a defect which is quite compatible with perfect vision in other respects.

Colour-blindness may exist in three forms:—(1) Inability to discern any colour, properly so called, so that black and white—*i.e.*, light and shade, are the only variations of tint perceived. (2) Inability to dis-

criminate between nicer shades of more composite colours, as browns, greys, and neutral tints. (3) Inability to distinguish between primary colours, red, blue, and yellow; or between these and secondary and tertiary colours, such as green, purple, orange, and brown (Dr. G. Wilson).

Defect upon which false perception of colours is due, consists probably of some peculiar organization of retina and that part of brain which is essential to vision. Generally congenital: cases known where it has been induced by disease or injury. Quite incurable. Care should be taken that railway servants are not afflicted with colour-blindness, since mistakes in nature of signals might lead to a serious accident.

COMA.—From Κῶμα, sound sleep.—A state of stupor with loss of consciousness, from which patient is roused with difficulty. In *carus* (from Κάρος, heavy sleep) or *intense coma*, there is not only loss of perception and volition, but usually stertorous breathing, flaccid limbs, and dilated pupils: patient cannot be roused.

In coma coming on without previous disease there may be a difficulty in attributing it to the correct cause. Following table shows chief points of distinction:—

Pressure of Fractured Bone or Apoplectic clot.	*Concussion.*
1. Patient cannot be roused.	1. Recovery to a slight extent soon after injury.
2. Vomiting sometimes.	2. Vomiting in favourable cases.
3. Snoring and difficult breathing.	3. Breathing easy.
4. Slow, irregular, intermitting pulse.	4. Fluttering, or feeble pulse.
5. One or both pupils widely dilated, according as pressure is unilateral or bilateral.	5. Pupils natural, but insensible to light.
6. Face pale. Cold clammy sweats.	6. Countenance but little changed. Body cold and pale.

Poisoning by Opium.	*Intoxication.*
1. Can at first be roused by loud noises.	1. Can be momentarily roused.
2. Vomiting sometimes, with slight efforts at reaction.	2. Vomiting in early stage.
3. Breathing slow and stertorous.	3. Stertor absent, or not loud.
4. Weak and soft pulse.	4. Pulse quick.
5. Pupils usually much contracted, and insensible to light.	5. Pupils contracted or dilated; often the latter.
6. Countenance livid. Clammy sweats.	6. General appearance characteristic. Smell of alcohol in the breath.

Numerous cases of apoplexy occurring in the streets have been mistaken for examples of drunkenness. Practitioner cannot be too cautious in his diagnosis.—See *Apoplexy; Poisoning; Alcoholism.*

COMPRESSION OF BRAIN.—From *Comprimo,* to squeeze together.—May be produced by extravasation of blood or serum; fracture of skull, with depression of bone; bony excrescence; some foreign body,—a bullet, portion of spike &c.; by abscess and tumours of brain. Symptoms are essentially those of *apoplexy.*

CONCUSSION OF BRAIN.—From *Concutio,* to shake.—Signalized by fainting, sickness, stupor, insensibility, and loss of all muscular power, succeeding immediately to some act of external violence. Patient may rally quickly, or not for many hours; or he may die suddenly, or at end of some days. After death, no lesion may be detected; or a laceration of some part of brain; or a general softening of cerebral substance.

Symptoms. Vary according to degree of concussion. When shock has been slight, state of unconsciousness soon recovered from: complaint only made of confusion of ideas, faintness, sickness, chilliness, drowsiness, ringing noises in ears. In more severe forms, insensibility continues longer. Patient lies as if in deep sleep; pupils insensible to stimulus of light; surface pale and cold; muscles flaccid; pulse fluttering or feeble; sphincters relaxed; breathing often scarcely perceptible. When, after variable interval, partial recovery ensues, there is confusion of thought; inability to articulate distinctly; often, severe vomiting; sometimes, paralysis of one or other extremity. In worst cases, individual is felled to ground by the shock, and dies on the spot.

Whole nervous system now and then receives a jar by railway accidents, without immediate symptoms being developed. In course of a few days there may be diminution of power of motion; one or more fits of epilepsy; squinting, or impairment of sight; deafness, or troublesome noises in ears. These symptoms, after a variable duration may pass off: occasionally they are precursors of serious cerebral or spinal disease.

Treatment. Patient to be watched carefully. Make sure that there is no fracture or dislocation. If, on recovery from shock, there be excessive reaction, cold to head. Two or three drops of croton oil on tongue. Where no attempt to rally is made, a little wine or brandy and water. Warmth to surface of body and extremities: blankets, bottles of hot water, hot bricks &c. In after-treatment, a mild unstimulating diet; absolute rest from all mental occupation; bodily repose and quiet; gentle bitter aperients.

CONCUSSION OF SPINAL CORD.—From *Concutio,* to shake.—May arise from any shock,—as fall, jump, severe blow &c.

Symptoms. At first slight and obscure. Peculiar tingling (sense of pins and needles) in extremities. Increasing weakness. Difficulty in passing urine. Coldness and numbness of legs; gradually increasing difficulty in walking. Perhaps, irremediable paraplegia.

Treatment. Cases become serious from neglect. A cure usually to be effected by perfect rest in bed until all symptoms have passed off. Nourishing food. Attention to bowels and bladder.

CONJUNCTIVITIS.—From *Conjunctiva* (*Conjungo*, to join together), the membrane which lines the eyelids and covers anterior surface of eyeball; terminal *-itis*. Synon. *Ophthalmia.*—Inflammation of mucous membrane of eye, a common affection. Some authors divide the ophthalmiæ into several classes: for practical purposes it suffices to remember the varieties to be presently mentioned.

During violent fits of coughing, vomiting, &c., blood sometimes extravasated beneath conjunctiva, owing to rupture of a small vessel. Whether patch of *ecchymosis* be small, or so abundant as almost to conceal sclerotic, absorption soon takes place. If patient be anxious for some application, a piece of linen dipped in cold water containing a few drops of tincture of arnica, may be laid over eye.

Effusion of serum into areolar tissue between conjunctiva and sclerotic is called *chemosis*. When œdema is abundant, conjunctiva becomes quite elevated, so that cornea looks as if it were sunk in a deep depression. Swelling subsides as disease which causes pressure on conjunctival veins disappears.

1. Catarrhal Ophthalmia.—A mild form of inflammation of the conjunctiva and Meibomian follicles. Most common of all eye diseases: caused by exposure to cold and wet, sudden changes of temperature &c.

Symptoms. Slight pain, or sense of scalding. Stiffness and dryness: a feeling of pricking or roughness about the eye, as if sand or broken glass were under upper eyelid. This sensation caused by rubbing of sensitive eyelids over enlarged vessels of sclerotic conjunctiva. These vessels seen to be of a bright scarlet, and irregularly arranged; differing from appearance of vessels in sclerotitis, in which they are of a pink hue, disposed straight and regularly like radii in a circle. Natural secretion from conjunctiva and Meibomian follicles increased in quantity: often becomes puriform.

Treatment. Yields readily to simple treatment: often terminates favourably, without any remedies. At outset, if there be obstinate constipation, calomel and jalap, 140, 159; or a dose or two of some milder aperient, 141. If general health be bad, stimulants or tonics, with beer or wine, and meat. Where there is plethora, continue purgatives for two or three days, while diet is restricted. In troublesome cases, a blister behind ear. Arsenic, 52. Iodide of potassium, 31. Affected eye can be rested by wearing a shade; to be bathed several times in day with warm water. Astringent applications rarely needed: occasionally, a drop or two of vinum opii, or of solution of nitrate of silver (gr. 2 to fl. oz. j), may cut short an attack. When discharge is abundant, edges of eyelids should be smeared with some simple ointment at night, to prevent their adhering in the morning.

2. Purulent Ophthalmia.—Same disease as foregoing, only much more severe, and consequently more destructive. Three kinds:—

Purulent ophthalmia of adults, or contagious ophthalmia, or Egyptian ophthalmia; gonorrhœal ophthalmia; and purulent ophthalmia of infants.

Symptoms. In *purulent ophthalmia of adults*, inflammation very intense, runs a rapid course, attended with violent pain, and leads to formation of large quantities of thick and yellow purulent matter. Eyelids swell so that they cannot be separated sufficiently to expose cornea; chemosis; discharge adheres to eyelashes in thick drops. Severe pain in eye and forehead. Generally much constitutional disturbance, fever, prostration. Where disease does not yield, inflammation increases, attacks cornea, and occasionally internal textures of eye; extensive sloughing takes place; and when sufferings terminate it is found that sight is completely lost.—It is contagious, frequently epidemic, and common in hot climates. Military life appears to predispose to it. Both eyes often affected; sometimes simultaneously.

Gonorrhœal ophthalmia differs from the preceding in a few points only. Thus, it is the most severe; rarely limited to one eye, but one organ usually attacked two or three days before the other; caused by contact of gonorrhœal—or even leucorrhœal—discharge with conjunctiva. Frequently ends in sloughing of cornea.

Purulent ophthalmia of infants, or *ophthalmia neonatorum*, generally commences about third day after birth, with inflammation of that part of conjunctiva lining palpebræ. Edges of eyelids adhere; on separating them a drop of thick white fluid escapes. As inflammation extends to conjunctiva covering eyeball, eyelids swell; purulent discharge increases; child becomes very feeble and restless and fretful. Disease may remain in this state for eight or nine days; if not then relieved, ulceration of cornea occurs, and very destructive consequences ensue. Both eyes commonly suffer; either at same time, or within an interval of a few days. Discharge contagious.

Treatment. In purulent ophthalmia of adults and gonorrhœal ophthalmia, no need for violent measures. Result to be dreaded is ulceration and sloughing; morbid processes which are more likely to be encouraged by bleeding and antimony and mercury and starvation, than by any other agents. At commencement, when tongue is thickly coated, an active purgative, 140, 151. If there be debility,—Ammonia and bark, 371; quinine, 379; cod liver oil. Animal food. Beer or wine. To combat restlessness at night,—Henbane; camphorated tincture of opium; ether; morphia and Indian hemp, 317. *Locally*:—Injections of solutions of alum (gr. 8 or 10 to water fl. oz. j), under eyelids, every hour; or solution of nitrate of silver (gr. 2 to fl. oz. j) may be employed, in same way, about every eight hours. If there be ulceration of cornea, it may sometimes be checked by early application of solid nitrate of silver. Pain arising from application must be relieved by warm narcotic fomentations, and opium. To prevent lids from adhering, smear their edges at night with diluted citrine ointment, 305.

To cure purulent ophthalmia of infants,—Magnesia; castor oil; mercury and chalk, 35. Small doses of ipecacuan and opium powder. Iodide of potassium. Examination of mother's milk: if it be poor or

deficient in quantity, a healthy wet-nurse. Goat's or cow's milk. Liebig's food, 4. *Locally*:—Bathing of eye with tepid water: injections of a solution of alum (gr. 5 to water fl. oz. j) beneath lids, every six or eight hours. Injections of sulphate of zinc (gr. 2 to fl. oz. j) in severe cases.

3. Strumous Ophthalmia.—A disease of scrofulous and other children, occurring generally between time of weaning and ninth or tenth year.

Symptoms. Slight conjunctival and sclerotic redness; with formation of little phlyctenulæ or pustules, sometimes of ulcers, on cornea. Copious lachrymal secretion; irritability of nasal and buccal mucous membranes. Great intolerance of light (*photophobia*), with spasmodic contraction of eyelids. Swelling of lips, eruptions behind ears, disordered intestinal secretions. Both eyes usually affected. Hot tears flowing over cheek often produce an eruption resembling crusta lactea.

Treatment. Good nourishing food. Milk. Beer. Warm clothing. Pure air. Occasional doses of mild laxatives. Tonics,—Quinine, arsenic, steel &c. Cod liver oil. *Locally*:—Warm fomentations. Use of a green shade: a green or blue veil. Drops of wine of opium. Sulphate of zinc or alum (gr. 2 to fl. oz. j). Spermaceti ointment to edges of lids. Blisters behind ears, or to nape of neck. Flying blisters to temples.

4. Granular Conjunctiva.—The conjunctiva, particularly palpebral portion, is found red and uneven and granular. So-called "granulations" consist of inflamed mucous follicles and papillæ: when they cause much irritation, opacity of cornea may result.

Treatment. Quinine. Arsenic and steel, 399. Good diet. Dabbing granulations gently with undiluted liquor potassæ, previously everting lids. Sulphate of copper. Nitrate of silver. Ointment of nitrate of mercury. Sulphur ointment.

CONSTIPATION.—From *Constipo*, to crowd thickly together. Synon. *Obstipatio; Alvus Adstricta; Torpor Intestinorum.*—May be an idiopathic affection, or may arise during progress of any acute or chronic disease. By *habitual* costiveness is meant, a prolonged departure from the standard natural to the individual. As a rule, most people have a daily evacuation; but some only go to stool every second or third day.

Symptoms. Functions of stomach, liver, and pancreas imperfectly performed. A sense of mental and bodily oppression. Sallow and pasty complexion. Dry skin. Scanty urine. No stools: or only scanty motions, pale, clay-like, and very offensive.—In obstinate cases:—A loss of all power for exertion. Headache. Palpitation. Neuralgia. Hypochondriasis.

Treatment. *Temporary constipation*:—Sulphate of magnesia, manna, and senna, 139. Sulphate and carbonate of magnesia, 141. Sulphate of soda and taraxacum, 144. Aloes, senna, and jalap, 145. Resin of podophyllum, 160. Castor oil, 164. Calomel and jalap, 159.

Rhubarb and magnesia, 165. Croton oil, 168. Rhubarb and blue pill, 171. Gamboge, aloes, and blue pill, 174. Simple enemata, 188. Castor oil and turpentine enema, 190. Croton oil enema, 191. Purgative electuaries, 194.—*Officinal purgatives:*—Confection of pepper. Confection of scammony. Confection of senna. Confection of sulphur. Compound decoction of aloes. Decoction of taraxacum. Elaterium. Enema of aloes. Enema of sulphate of magnesia. Extract of Barbadoes aloes. Extract of Socotrine aloes. Compound extract of colocynth. Extract of jalap. Purified ox bile. Calomel. Mercury and chalk. Blue pill. Infusion of rhubarb. Infusion of senna. Resin of jalap. Carbonate of magnesia. Sulphate of magnesia. Scammony mixture. Croton oil. Castor oil. Pill of Barbadoes aloes. Pill of aloes and assafœtida. Pill of aloes and myrrh. Pill of Socotrine aloes. Compound pill of gamboge. Compound pill of colocynth. Pill of colocynth and hyoscyamus. Compound rhubarb pill. Resin of podophyllum. Tartrate of potash. Acid tartrate of potash. Compound powder of jalap. Compound powder of rhubarb. Compound powder of scammony. Tartrate of soda and potash. Phosphate of soda. Precipitated sulphur. Syrup of senna. Tincture of aloes. Tincture of jalap. Tincture of rhubarb. Tincture of senna. Compound tincture of benzoin. Wine of aloes.

Habitual constipation:—Olive oil. Almond oil. Castor oil, 164. Rhubarb and magnesia, 165. Syrup of senna. Sulphate of soda, 143, 144, 148. Pepsine and aloes, 155. Steel and aloes, 154, 404. Nitric acid, senna, and taraxacum, 147. Sulphates of magnesia and iron, 166. Seidlitz powders, 169. Purified ox bile, 170. Glycerine. Factitious Cheltenham waters, 180. Factitious Carlsbad waters, 182. Simple enemata, 188. Suppositories of soap, or cocoa butter. Quinine, 379. Quinine and nux vomica, 387. Zinc and nux vomica, 409. Strychnia and steel, 408. Sulphate of zinc, 177. Compound tincture of benzoin. Extract of nux vomica, 175. Valerianate of zinc and belladonna, 410. Tar pills, 36. Cod liver oil. Pepsine, 420. Nitro-hydrochloric acid, 378. — *Diet:*—Wholesome and digestible food. Ripe fruits in morning. Figs or prunes soaked in olive oil. Oatmeal porridge. Brown bread. Aërated bread. Tobacco. Tumblerful of spring water at bed-time.—*General remedies:*—Daily exercise. Avoidance of too much sleep. Sponge or shower baths. Wet compress over abdomen. Friction of abdominal walls. Galvanism. Gentle kneading of abdominal walls. Bowels to be solicited to act at a regular hour daily.—See *Intestinal Obstruction.*

CONTUSIONS OF ABDOMINAL WALLS. — From *Contundo*, to bruise, to crush to pieces.—May be produced by kicks, blows, a fall upon some prominent object, or a squeeze between buffers of two railway carriages &c. Consequences often very serious. A blow sometimes causes death immediately, owing to syncope from shock to solar plexus of sympathetic. In other instances there may be laceration of some internal structure, with hæmorrhage: injured individual often dies, at end of a few hours, from combined effects of shock and loss of blood.—Occasionally, contusion causes rupture of

an internal organ, with extravasation of contents. There may be no external symptom of injury; and yet tissues of gall-bladder, liver, spleen, stomach, intestinal canal, or pregnant uterus be torn through. Patient either dies shortly from collapse, or hæmorrhage: surviving these dangers, from peritonitis after a longer interval. Instances have occurred of laceration of liver or kidney, where sufferers having got over first effects of succeeding inflammation have subsequently fallen victims to blood-poisoning from absorption of extravasated fluids. Lastly, a contusion may only set up inflammatory action in a limited portion of the abdominal wall, this action going on to suppuration.—See *Abscess of Abdominal Walls*.

CONVULSIONS.—From *Convello*, to overthrow, to annihilate &c. Synon. *Eclampsia; Hyperspasmia; Spasmus.*—Convulsions consist of violent and involuntary contractions of muscles of whole body; occurring in paroxysms, and attended with unconsciousness. Sometimes, contractions partial, of considerable duration, and attended with hardness of affected muscles (*tonic spasms*, or *spastic contractions*); *e.g.* common cramp and tetanus. Sometimes, quickly alternating contractions and relaxations (*clonic spasm*); *e.g.* subsultus tendinum—a catching of the tendons of hands and feet, as occurs in last stages of low fever.

Convulsions may be due to organic disease of nervous system, or to an insufficient supply of healthy blood to nervous centres; to irritation about gums or alimentary canal (as in teething, indigestion, intestinal worms &c.); to renal disease and albuminuria (as in uræmia and pregnancy); to a morbid state of the blood (as in hydrophobia, eruptive fevers, hooping cough &c.); as well as to strong and sudden mental emotion.

Symptoms. There are premonitory symptoms, or an absence of any warning. All the voluntary muscles attacked; or there may be only spasms of features, one half of body, or a single limb. During a general paroxysm there is distortion of features, pallor or lividity of face, staring eyeballs, insensibility of pupils to light, grinding and gnashing of teeth, protrusion of tongue &c. Involuntary evacuations. Laborious respiration. There will be only one attack, or several. Followed by a tendency to sleep. Seldom a fatal result unless connected with severe disease.

Treatment. *General remedies:*—Patient's dress to be loosened, especially clothing about neck. To be placed so that he may breathe pure and cold air. Cold to head if there be much heat and flushing. Cold affusion to head, while body is in a warm bath. Sinapisms, or hot bottles, to extremities. Mustard footbaths. Purgative and antispasmodic enemata, 190, 191. Croton oil, one or two drops on tongue. Emetics of ipecacuanha, if patient can swallow and there be evidence of gastric irritation, 231, 233. Blisters, dry cupping, to nape of neck. Venesection? Leeches? Opium, where there is no cerebral disease. Hypodermic injection of morphia, 314. Belladonna and camphor, 326. Ether. Chloroform in draughts, and by inhalation, 313. Sulphate of aniline (gr. 1 twice or thrice daily). Benzoic acid, 49. Lemon juice. Vinegar.

Puerperal convulsions:—Purgative and antispasmodic enemata. Inhalation of chloroform. Induction of labour, when patient is undelivered: convulsions often cease as soon as liquor amnii is evacuated. When convulsions occur during parturition, expedite delivery by forceps or turning, patient being previously placed under influence of some anæsthetic. Venesection and leeches are worse than useless where there is uræmia or albuminuria. In convulsions after delivery, hypodermic injection of morphia: chloroform, or ether, inhalation. Benzoic, or acetic, acid.

Infantile convulsions:—Attention to diet. Cold to head, while body is in a warm bath. One or two grains of calomel placed on tongue. Ipecacuanha emetics, if stomach be loaded. Lancing gums, where they are in fault. Magnesia or soda in dill water, if there be acidity of secretions. Calomel and scammony, oil of turpentine, liquid extract of fern root, santonin, decoction of pomegranate root, if there be intestinal worms.—See *Chorea; Epilepsy; Hysteria; Tetanus Uræmia* &c.

COPPER COLIC.—Paroxysmal twisting or griping pains in the belly, due to chronic poisoning by copper. Affects copper-plate printers.

Symptoms. Attacks of abdominal pain, coming on suddenly: aggravated by pressure. Nausea and vomiting. Constipation may be absent. Peculiar sallow hue of complexion: countenance anxious: eyes sunken and lips livid. A purple line around gums.

Treatment. Sulphate of magnesia and sulphuric acid, 142. Sulphate of soda and sulphuric acid, 143. Castor oil, 164. Enemata of warm water. Morphia, chloroform, and Indian hemp, 317. Ether and opium, 85. Iodide of potassium, 31. Hot baths. Sinapisms. Turpentine stupes. Linseed poultices.—See *Colic.*

CORNEITIS.—From *Cornea* (*Cornu*, a horn), the transparent and nearly circular external tunic of the eyeball, forming the anterior sixth of the globe; terminal *-itis.*

1. Acute Inflammation.—Corneitis, or preferably Keratitis (Κέρας, a horn), renders the polished and transparent cornea hazy, dim, and rough. May cause it to look like ground glass.

Symptoms. A crescentic plexus of minute vessels can be seen passing from edge of cornea. A zone of pink vessels in adjacent sclerotic. Haziness of cornea with opacity. Abundant secretion of tears. Intolerance of light. Strumous children and subjects under twenty years of age most liable to it. One or both eyes may be affected: sometimes one eye attacked, just as the other is getting well. Morbid action may last for months and leave cornea permanently cloudy. Occasionally ends in suppuration, and pus gets infiltrated between fibres of the membrane. Softening generally takes place posteriorly: pus makes its way into anterior chamber, to bottom of which it sinks; where it assumes a crescentic form—*hypopyon.* When an opening occurs anteriorly, a perforating ulcer of cornea is produced through which iris protrudes—*staphyloma iridis.*

Treatment. Attention to biliary and intestinal secretions. Rhubarb and magnesia, mercury and chalk, calomel, or castor oil. Iodide of potassium and bark, 31. Iodide of iron, 32. Cod liver oil. Chemical food, 405. Quinine. Tincture of perchloride of iron. Nourishing diet, with milk. Small blisters to temples, or behind ears. Warm fomentations: steaming the eyes. Tincture of iodine to skin of lids. Avoidance of irritating collyria.

2. Syphilitic Keratitis.—Sometimes spoken of as "chronic interstitial keratitis." The result of inherited constitutional syphilis. Affects children and young persons, especially females. Is very chronic.

Symptoms. A diffused haziness beginning at centre of one cornea. Tissue gets to resemble ground glass. No tendency to ulceration. After a few weeks both corneæ become affected. Subjects of this disease have a coarse and flabby skin, pits and scars on face and forehead, cicatrices of old fissures at angles of mouth, sunken bridge to nose, and permanent teeth peculiar for smallness and bad colour and vertically notched edges (Hutchinson).

Treatment. Cautious use of mercury, avoiding salivation. Corrosive sublimate and compound infusion of gentian. Mercurial inunction behind ears. Iodide of potassium. Iodide of iron. Ferruginous tonics. Liberal diet. Cod liver oil.

3. Opacity of Cornea.—May result from inflammation, giving rise to effusion of fibrin into substance of cornea, or between it and conjunctiva; or it may be the consequence of a cicatrix following an ulcer.

When opacity is cloudy and diffused, as from keratitis, appearance called a *nebula:* a limited white patch, such as results from a cicatrix, is known as *albugo* and *leucoma*. Employment of acetate of lead collyria, when there has been an abrasion of cornea or conjuctiva, has led to formation of a permanent white deposit. This may sometimes be gently scraped away.

4. Ulcers of Cornea.—Occur in individuals of all ages where powers of life have been lowered by illness, insufficient food, strumous disease &c. May lead to perforation of cornea with escape of aqueous humour, obliteration of anterior chamber, and prolapsus iridis. To be cured by attention to general health. When the ulcer is very indolent, local use of nitrate of silver. Avoidance of irritating collyria.

5. Conical Cornea.—Synon. *Keratoconus; Staphyloma Corneæ Pellucidum.*—A rare malformation. Cornea found exceedingly convex, giving a peculiar sparkling or brilliant appearance to eye. Both eyes usually affected, though often unequally. In consequence, an almost total deprivation of vision. Causes of this deformity not known. In the few cases which have been examined after death, apex of cornea has been found thinner than natural.—All kinds of treatment have been fruitless. But patient's vision may sometimes be partly assisted by a deeply concave glass; or by use of a black plate with a trans-

verse slit along its middle, fixed in spectacle-frame with or without the glass.

6. Arcus Senilis.—Synon. *Leucoma Gerontotoxon; Macula Corneæ Arcuata; Fatty Degeneration of Peripheral Portion of Cornea.*—A gradually increasing opacity of circumference of cornea, owing to fatty degeneration. Generally occurs in the aged. Indicative of fatty degeneration of heart?

CORYZA.—From Κάρα, the head; ζέω, to boil. Synon. *Rhinitis; Gravedo; Stillicidium Narium; Cold in the Head.*—Catarrhal inflammation of Schneiderian membrane of nose.—Often quickly relieved by full dose of opium. Iodine vapour, 259.—See *Catarrh.*

COUGH.—Synon. *Tussis.*—A symptom of numerous and varied diseases. Frequently an effort to expel irritating matters from bronchi and air cells. Sometimes an idiopathic affection.—See *Asthma; Bronchitis; Croup; Hooping Cough; Laryngismus Stridulus; Laryngitis; Phthisis; Pleurisy; Pneumonia* &c.

Treatment. *General Remedies:*—Mucilage of gum Arabic. Mucilage of tragacanth. Decoction of Iceland moss (Cetraria). Decoction of barley. Infusion of dulcamara. Infusion of linseed. Infusion of marsh mallow. Liquorice jujubes (consisting of gum and sugar and gelatine). Ammoniac mixture, 237. Balsam of Peru with mucilage. Syrup or tincture of tolu. Ammonia and senega, 235. Antimonial wine, 240. Ipecacuan wine, 241. Powder of ipecacuan and opium. Tincture or syrup of squills, 236, 247. Compound squill pills. Spirit of nitrous ether. Spirit of ether. Spirit of chloroform. Rectified pyroxylic spirit. Dilute hydrocyanic acid. Laurel water (Aqua laurocerasi, min. v to xxx). Morphia, 315, 317, 346, 347. Opium, 213, 316, 324, 338, 345. Camphorated tincture of opium, 235, 319. Syrup of poppies. Conium, 335. Henbane. Stramonium, 323. Aconite, 330, 332. Belladonna, 326, 344. Indian tobacco, 88, 242. Almond oil. Cod liver oil, 389. Inhalation of steam, tar vapour, medicated vapours. Spray, or atomised fluids, of weak solutions of tannic acid, perchloride of iron, sulphate of zinc, alum, opium, conium, &c. 262. *Locally to chest walls:*—Mustard poultice. Turpentine stupes. Blisters. Opium, belladonna, ammoniac and mercury, chalybeate, galbanum, pitch, or warm plasters. Liniment of chloroform, or opium, or belladonna, or iodine, properly diluted. Compound liniment of camphor. Liniment of croton oil, 207. Ointment of tartarated antimony. Tartar emetic embrocation, 206.

Cough from Intestinal Irritation &c.:—Lancing gums. Remedies against intestinal worms. Remedies against dyspepsia, gastric catarrh, constipation &c.

Cough from Enlarged Tonsils &c.:—Astringent gargles, 248, 249, 252, 257. Quinine, 379, 386. Steel, 380, 392, 395, 403. Phosphate of iron, 405. Iodide of iron, 382, 390. Iodide of ammonium. Phosphate of zinc, 414. Cod liver oil, 389. Application of nitrate of silver. Excision of tonsils. Amputation of elongated uvula. Potassa

fusa has been applied to enlarged tonsils, but its use requires great caution.

Nervous and Hysterical Cough:—Valerian, 87. Valerianate of quinine or zinc, 93, 410, 411. Assafœtida, 89. Phosphate of zinc. Nux vomica. Compound mixture of iron. Citrate of iron and quinia. Galbanum; compound pill of assafœtida. Nitrate of silver to glottis. Attention to uterine functions. Horse exercise. Sea bathing. Shower baths. Nourishing food.

COUP DE SOLEIL.—Synon. *Sun-stroke; Insolatio; Heat Apoplexy; Erethismus Tropicus.*—A disease allied to simple apoplexy. In perfect form, only met with in the tropics. Often fatal to European soldier, at seasons when heat is very oppressive.

Symptoms. Generally, faintness; thirst; considerable heat and dryness of skin; great failure of nervous energy. Often, vertigo and a sense of tightness across chest. Pulse sometimes quick and full, sometimes so thin and feeble it can hardly be felt. As case progresses, heart's action becomes violent; patient can scarcely be roused; face gets pallid; perhaps an attack of vomiting ushers in deep coma. While comatose, there is heat of skin; dyspnœa; contracted pupils, with congested conjunctivæ; action of heart intermittent. Just prior to death, dilatation of pupils; gasping respiration; perhaps vomiting.

In some instances, symptoms very insidious. Mere listlessness and stupidity; head is said to feel a little queer. Yet in twelve hours, death.—Often, after exposure to sun, the individual has suddenly fallen down insensible; made one or two gasps; and died in state of syncope.

If recovery take place, convalescence apt to be retarded by deranged secretions, continued fever, some pulmonary complication, partial paralysis, or great prostration.—Patient not free from immediate danger until skin gets cool and moist. Many months after apparent cure, symptoms of paralysis or of insanity may be developed: in any case, the individual is seldom the man he was prior to attack.

Treatment. *Curative:*—Mortality very large where bloodletting has been resorted to. Most reliable remedies,—Cold to head, and stimulants. A continuous stream of cold water to be poured over head and neck and spine and chest, provided pulse be not very weak and skin cold. Evaporating lotions to scalp. Blisters, or liniment of cantharides, to nucha. Ammonia. Ether. Brandy. Tea, well-sweetened. Ipecacuanha emetics, if stomach be loaded. Sinapisms or turpentine stupes to extremities. Stimulant enemata. Ice to spine. Frictions of surface.

Prophylactic:—When a march is undertaken in India during hot season, weak and sickly to be left behind. Costume to be suitable to early morning hours before sunrise, as well as for scorching heat which follows. Flannel shirts, as safeguards against sudden chills: flannel belts advantageous, save in hottest weather. Shirt collars to be open. Light knapsacks, without cross-belts over chest. Troops to march easy: halts when men are exhausted, with longer halt half-way, so that each man may have coffee and biscuit. To arrive on *new*

ground about an hour after sunrise. Camp to be formed on as high and open ground as possible. Men to have an ample supply of water. Rations of spirits to be discontinued (Aitken).

COW-POX.—Synon. *Vaccinia.*—The comparative immunity against small-pox, conferred by vaccination, was discovered by Jenner towards close of eighteenth century.

When vaccination has been successfully performed on a healthy child, an elevation may be felt over puncture on second day, accompanied by slight redness; on fifth, a distinct vesicle is formed, having an elevated edge and depressed centre; on eighth, it is of a pearl colour, and is distended with a clear lymph. An inflamed areola now forms round base of little tumour, and increases during two succeeding days; about eleventh day it fades; and the vesicle, which has then burst and acquired a brown colour, gradually dries up, until by end of second week it has become converted into a hard and round scab. This falls off about twenty-first day; leaving a circular, depressed, striated cicatrix, which is permanent in after-life. First vaccination affords protection for ten years, perhaps for longer: a safe proceeding to revaccinate after this lapse of time.

Four or five separate, good-sized vesicles should be produced.—When variola occurs after vaccination, it is known as *varioloid*, or *modified* small-pox.

CRETINISM.—Perhaps, according to Dr. Mayne, from *Cretira*, old Italian for a poor creature. Synon. *Idiotismus Endemicus; Fatuitas Alpicolarum; Micrencephalon.*—A form of idiocy, accompanied by deformity of the bodily organs. Supposed by some authorities to have a close, but ill-understood connection with goitre.

Symptoms. Diminutive stature. Large head, flattened at top, and spread out laterally. Countenance vacant and void of intelligence. Mouth gaping and slavering. Tongue protruding. Goitre. Disgusting habits. Perhaps squinting, deaf-mutism, blindness.

Treatment. Pure mountain air. Plenty of exercise. Simple nourishing food, with milk. Cod liver oil. Carbonate of iron. Phosphate of lime. Chemical food. Valerianate of zinc. Moral control. Judicious mental training.

CROUP.—Synon. *Tracheitis; Cynanche Trachealis; Angina Trachealis.*—An inflammatory disease of mucous lining of trachea, or often of glottis and larynx and trachea. Fever and inflammation accompanied by exudation of false membranes on affected surfaces.—Most common during second and third years of childhood. Often complicated with bronchitis or pneumonia. May end fatally from exhaustion, suffocation, convulsions, or thrombosis. Mortality very large.—See *Death Causes.*

Symptoms. In early stage, those of catarrh. Slight fever; cough; hoarseness; drowsiness; suffusion of eyes, and running at nose. In course of eighteen hours, wheezing respiration; fits of hoarse coughing; occasional spasms of laryngeal muscles. Then, characteristic

symptoms: alteration in cough, which is attended with a peculiar ringing sound, rendering it "brassy." Inspirations prolonged; accompanied with crowing or piping noise. Redness and swelling of tonsils and uvula, less marked than in tonsillitis. Increased fever. Breathing becomes more hurried and impeded. Cough frequent. Depression, with weakness and irregularity of pulse. Thirst. Irritability and restlessness. Features expressive of alarm and distress: patient grasps at his neck, or thrusts his fingers into mouth, as if to remove cause of suffering. Nocturnal exacerbations: remissions towards morning.—As disease subsides, cough loses peculiar twang, becomes moist: crowing inspirations lessen, or cease.—When tending to death, drowsiness gets extreme, though sleep is uneasy: child starts, and wakes in terror. Breathing becomes gasping and interrupted: suffocation seems imminent. Congestion of lungs. Skin cold; covered with clammy sweat. Perhaps death directly after an inspiration: asphyxia, coma, convulsions, or fatal dyspnœa from thrombosis.

Treatment. Under use of bleeding, tartarated antimony, and mercury, half the cases attacked die. For this cause alone, a different plan ought to be tried. Blisters most injurious.

Confinement to bed. Flannel clothing. Temperature of room 70° F.; air to be moistened with steam. Continuous fomentations to throat: sponges dipped in water as hot as can be borne. Emetic of ipecacuan, 231. Calomel as a purgative, or castor oil, if there be constipation. Lessen excessive heat of skin by warm bath, 137. If skin be dry, wrap patient in a blanket wrung out of warm water, and cover all with two or three dry blankets, 136. Painting of throat with belladonna,—diluted extract, liniment, or tincture—if distress arise chiefly from spasmodic contractions of laryngeal muscles. Iodide of potassium with assafœtida and senega, 31. Ammonia and senega, 235. Inhalation of spray of hot saccharated solution of lime, 262. Inhalation of oxygen gas. Beef tea. Lime water and milk. Cream. Wine, or brandy.—Tracheotomy, if predominant symptoms are those of asphyxia: inhalation of chloroform, so that operation may be performed deliberately and cautiously. After operation, trust to warm moist air, nourishment, and stimulants: abandon medicines.

Remedies often recommended:—Leeches. Bleeding. Purging. Blisters. Tartarated antimony. Calomel. Mercurial inunction. Digitalis. Hydrocyanic acid. Squills. Veratrum viride. Sanguinaria Canadensis. Quinine. Sulphate of copper. Sulphurated potash. Nitrate of silver, locally. Glycerine, locally. Tincture of iodine, painted over outside of neck.

CYANOSIS.—From Κύανος, blue; *νόσος*, disease. Synon. *Hæmatocyanosis; Morbus Cæruleus; Blue Disease.*—A condition characterised by a blue or purplish discoloration of skin; arising generally in connexion with some deficiency in construction of the heart.

Chief malformations:—Permanence of foramen ovale, allowing a passage of blood between the auricles. Abnormal apertures in some part of septum of auricles or ventricles. Origin of aorta and pulmonary artery from a single ventricle. Transposition of origins of

large vessels from heart; aorta arising from right, and pulmonary artery from left, ventricle. An extreme contraction of pulmonary artery. Continued patescence of ductus arteriosus, permitting a mixture of bloods of aorta and pulmonary artery.

Symptoms. Discoloration of skin. Coldness of body: temperature of mouth sometimes reduced to 77° F. Palpitation. Fits of dyspnœa. Syncope on excitement. Tips of fingers and toes become bulbous: nails incurvated. Generative organs often imperfectly developed. Congestion of internal organs, and dropsical effusions.—Infants affected, generally die very early: occasionally, life prolonged to adult age: Males more prone to cyanosis than females. Under exceptional circumstances it may not come on until somewhat late in life.

Treatment. Must be simply palliative. Nourishing food. Occasionally, mild tonics. Warm clothing. Avoidance of fatigue, or mental excitement. Residence in pure mild air.

CYNANCHE LARYNGEA.—From Κύων, a dog; ἄγχω, to strangle,—because dogs were supposed to be especially liable to sore throat: Λάρυγξ, the windpipe. Synon. *Angina Laryngea; Inflammation of the Larynx.*—See *Laryngitis.*

CYNANCHE PAROTIDEA.—From Κύων, a dog; ἄγχω, to strangle: Παρα, near; οὖς, the ear. Synon. *Parotitis Contagiosa; Angina Externa; Mumps; Branks; Inflammation of the Parotid Gland.*—See *Parotitis.*

CYNANCHE TONSILLARIS.—From Κύων, a dog; ἄγχω, to strangle: *Tonsilla*, the tonsil. Synon. *Amygdalitis; Angina Tonsillaris; Inflammatory Sore Throat; Quinsy.*—See *Tonsillitis.*

CYNANCHE TRACHEALIS.—From Κύων, a dog; ἄγχω, to strangle: *Trachea*, the windpipe. Synon. *Suffocatio Stridula; Angina Membranacea; Laryngotracheitis; Rising of the Lights; Inflammation of the Trachea.*—See *Croup.*

DEAFNESS. — Synon. *Cophosis; Surditas; Hardness of Hearing.*—May be the result of rheumatism, gout, or some diminution of nervous force.—See also, *Otorrhœa; Otitis; Eustachian tube.*

1. Rheumatism of Ear.—Most frequently occurs after subsidence of rheumatic inflammation of joints.

Symptoms. Tenderness of scalp, temple, mastoid process, jaw, and teeth on affected side. Distressing tinnitus. Nightly exacerbations, with acid perspirations. An acute attack may prove most destructive by producing periosteal inflammation and caries. Sometimes obstinate otorrhœa results: may lead to exfoliation of a portion of bone.

Treatment. Alkaline salts. Iodide of potassium. Opium. Hot bathing. Fomentations. When great tenderness exists over mastoid process, much relief may be given by an incision over this part down to the bone, so as to free tense inflamed periosteum.

2. Gout of Ear.—A common cause of deafness. Ear seldom attacked until small joints have been frequently invaded. Deafness generally preceded by severe headaches.

Symptoms. Gout affecting *external* ear often sets in soon after midnight. Tearing or twisting pain; burning heat; beating noises or singing in ear; swelling with redness.—Minute articulations of bones in the *middle* ear may suffer. Pain very acute. Sometimes loss of consciousness, delirium, or convulsions. Concretions and deposits of urate of soda found after death (Harvey).

Treatment. Same as for gout in other parts of body. Purging with neutral salts. Alkalies. Colchicum. Fomentations. When apparently due to metastasis, mustard pediluvia, or other local stimulants, to recall disease to less important joints.

3. Nervous Deafness.—Somewhat analogous to amaurosis. More or less deafness owing to some lesion of nervous system; whether the mischief have its seat in nervous tissue expanded in labyrinth, at origin or in course of seventh pair, or in brain itself.—In some cases no relief can be given; as in senile deafness, arising from insensibility of nervous tissue due to old age. Ear-trumpets. Marshall's Double Reflecting Ear-trumpets possess great advantages as regards the ease and distinctness with which they convey sounds of voice, without any necessity for speaker doing more than articulate clearly. Singing noises and deafness sometimes due to decayed teeth.

DEATH CAUSES.—Life can only be maintained by the circulation of arterial blood. If no blood circulates through arteries, or only venous blood, the result is death. When no blood circulates, death due to *syncope* (Συγκόπτω, to be affected with sudden prostration of strength), which is of two kinds:—(1) Death by *anæmia* ('A, priv.; αἷμα, blood), in which there is a want of due supply of blood to heart; as in fatal hæmorrhage. (2) Death by *asthenia* ('A, priv.; σθένος, strength), where there is a failure in contractile power of heart; as in apoplexy, action of certain poisons &c.—Sometimes life fails partly from anæmia and partly from asthenia; as in cases of starvation, phthisis, dysentery &c.

If venous blood circulate through arteries, death happens in one of two ways:—(1) By *apnœa* ('A, priv.; πνέω to breathe), *asphyxia*, or *suffocation*, where access of air to lungs is stopped; as in drowning, strangulation, many laryngeal and lung diseases, tetanus, section of phrenic and intercostal nerves &c. (2) By *coma* (Κῶμα, deep sleep), in which muscular movements required for respiration cease owing to insensibility produced by cerebral disease.—In apnœa there are successively impeded respiration, circulation of venous blood, and insensibility. In coma the order is reversed,—insensibility, cessation of thoracic movements, and stoppage of chemical functions of lungs.

The following table shows the Causes of Death in England for the four years 1860–1863, as well as the classification adopted by the Registrar-General:—

Estimated Population of England in middle of the Years,		1860 19,902,713	1861 20,119,314	1862 20,336,467	1863 20,554,137
Class.	DISEASES	1860	1861	1862	1863
	ALL CAUSES.....	422,721	435,114	436,566	473,837
	(CLASSES.)				
I.	ZYMOTIC DISEASES.....	75,849	87,986	91,539	119,731
II.	CONSTITUTIONAL „	82,088	84,987	83,024	84,393
III.	LOCAL „	171,037	167,454	170,651	174,603
IV.	DEVELOPMENTAL „	70,311	71,948	68,842	71,467
V.	VIOLENT DEATHS.....	14,775	14,985	14,944	15,680
	SUDDEN DEATHS, CAUSE UNASCERTAINED	2,894	2,697	2,778	3,008
I.	(ORDERS.)				
	1. MIASMATIC DISEASES ...	71,304	83,324	86,881	114,538
	2. ENTHETIC.....	1,252	1,355	1,449	1,578
	3. DIETIC	2,206	2,095	2,149	2,456
	4. PARASITIC	1,087	1,212	1,060	1,159
II.	1. DIATHETIC	16,404	16,233	16,412	16,651
	2. TUBERCULAR	65,684	68,754	66,612	67,742
III.	DISEASES OF—				
	1. NERVOUS SYSTEM	55,577	55,625	55,692	57,423
	2. ORGANS OF CIRCULATION	18,758	18,076	18,709	19,505
	3. RESPIRATORY ORGANS	68,408	64,310	67,565	67,280
	4. DIGESTIVE ORGANS ...	19,718	20,327	19,421	20,516
	5. URINARY ORGANS	4,990	5,222	5,328	5,578
	6. ORGANS OF GENERATION	1,118	1,129	1,227	1,219
	7. ORGANS OF LOCOMOTION	1,466	1,624	1,588	1,765
	8. INTEGUMENTARY SYSTEM	1,002	1,141	1,121	1,312
IV.	1. DEV. DISEASES OF CHILDREN	12,706	13,116	12,787	13,498
	2. „ ADULTS	2,233	2,168	2,198	2,508
	3. „ OLD PEOPLE.....	28,442	27,373	26,780	27,268
	4. DIS. OF NUTRITION	26,930	29,291	27,077	28,193
V.	1. ACCIDENT OR NEGLIGENCE	12,991	13,187	13,055	13,772
	2. BATTLE.....	*	*	*	*
	3. HOMICIDE	377	320	418	399
	4. SUICIDE	1,365	1,347	1,317	1,319
	5. EXECUTION	10	11	17	21
	OTHER VIOLENT DEATHS NOT CLASSED	32	120	137	169

Class.	DISEASES.	1860	1861	1862	1863
I.	ORDER 1.				
	1 Small-pox	2,749	1,320	1,628	5,964
	2 Measles	9,557	9,055	9,800	11,349
	3 Scarlatina	9,681	9,077	14,834	30,475
	4 Diphtheria	5,212	4,517	4,903	6,507
	5 Quinsy	319	342	323	334
	6 Croup	4,380	4,397	5,667	6,957
	7 Whooping-cough	8,555	12,309	12,272	11,275
	8 Typhus (and Infantile Fever)	13,012	15,440	18,721	18,017
	9 Erysipelas	1,665	1,542	1,523	1,920
	10 Metria	987	886	940	1,155
	11 Carbuncle	247	193	206	237
	12 Influenza	1,130	746	915	919
	13 Dysentery	1,156	1,416	1,044	1,051
	14 Diarrhœa	9,702	18,746	11,112	14,943
	15 Cholera	327	837	511	807
	16 Ague	203	149	150	141
	17 Remittent Fever	314	254	284	198
	18 Rheumatism	1,998	1,982	1,943	2,175
	19 Other Zymotic Dis.	110	116	105	114
	ORDER 2.				
	1 Syphilis	1,067	1,177	1,245	1,386
	2 Stricture of Urethra	178	168	199	183
	3 Hydrophobia	3	4	1	4
	4 Glanders	4	6	4	5
	ORDER 3.				
	1 Privation	68	63	73	54
	2 Want of Breast-milk	1,002	970	1,006	1,158
	3 Purpura and Scurvy	361	405	353	409
	4 Alcohol. { *a* Del. Trem.	457	415	471	471
	4 Alcohol. { *b* Intem.	318	242	246	364
	ORDER 4.				
	1 Thrush	920	1,055	904	961
	2 Worms, &c.	167	157	156	198
II.	ORDER 1.				
	1 Gout	268	247	284	248
	2 Dropsy	7,823	7,301	7,247	7,414
	3 Cancer	6,827	7,276	7,396	7,479
	4 Noma	122	174	197	180
	5 Mortification	1,364	1,235	1,288	1,330
	ORDER 2.				
	1 Scrofula	2,995	3,457	3,416	3,277
	2 Tabes Mesenterica	4,982	5,692	5,203	5,877
	3 Phthisis	50,149	51,931	50,962	51,072
	4 Hydrocephalus	7,229	7,674	7,031	7,516
III.	ORDER 1.				
	1 Cephalitis	3,518	3,426	3,580	3,869
	2 Apoplexy	9,181	8,795	9,136	9,721
	3 Paralysis	9,752	9,812	9,733	9,762
	4 Insanity	536	529	535	555

Class.	DISEASES.	1860	1861	1862	1863
III.	ORDER 1—*continued.*				
	5 Chorea	66	71	52	63
	6 Epilepsy	2,454	2,464	2,443	2,574
	7 Convulsions	25,205	25,423	25,286	26,008
	8 *Brain Disease, &c.*	4,865	5,105	4,927	4,876
	ORDER 2.				
	1 Pericarditis	575	541	559	597
	2 Aneurism	368	387	373	418
	3 *Heart Disease, &c.*	17,815	17,148	17,777	18,490
	ORDER 3.				
	1 Laryngitis	1,166	1,253	1,478	1,561
	2 Bronchitis	32,347	30,986	32,526	32,025
	3 Pleurisy	882	781	833	907
	4 Pneumonia	25,264	22,914	23,713	24,181
	5 Asthma	4,325	3,892	4,087	3,699
	6 *Lung Disease, &c.*	4,424	4,484	4,928	4,907
	ORDER 4.				
	1 Gastritis	704	809	765	838
	2 Enteritis	3,154	3,333	2,911	3,234
	3 Peritonitis	1,551	1,563	1,488	1,637
	4 Ascites	750	728	745	735
	5 Ulceration of Intest.	847	856	870	858
	6 Hernia	817	852	827	848
	7 Ileus	1,170	1,199	1,091	1,166
	8 Intussusception	245	276	280	246
	9 Stricture of Intest.	301	272	257	288
	10 Fistula	115	115	109	89
	11 *Stomach Disease, &c.*	2,866	2,786	2,730	2,800
	12 *Pancreas Disease, &c.*	12	18	16	12
	13 Hepatitis	1,329	1,386	1,262	1,402
	14 Jaundice	1,262	1,344	1,292	1,426
	15 *Liver Disease, &c.*	4,531	4,704	4,680	4,853
	16 *Spleen Disease, &c.*	64	86	98	84
	ORDER 5.				
	1 Nephritis	245	306	273	335
	2 Ischuria	96	102	104	143
	3 Nephria	1,390	1,448	1,541	1,700
	4 Diabetes	536	537	574	551
	5 Stone	179	168	196	172
	6 Cystitis	299	343	342	340
	7 *Kidney Disease, &c.*	2,245	2,318	2,298	2,337
	ORDER 6.				
	1 Ovarian Dropsy	244	235	280	255
	2 *Uterus, &c. Disease*	874	894	947	964
	ORDER 7.				
	1 Arthritis	68	79	70	73
	2 *Joint Disease, &c.*	1,398	1,545	1,518	1,692
	ORDER 8.				
	1 Phlegmon	413	454	409	530
	2 Ulcer	332	401	387	435
	3 *Skin Disease, &c.*	257	286	325	347

Class.	DISEASES.	1860	1861	1862	1863
IV.	ORDER 1.				
	1 Premature Birth	7,642	7,610	7,706	8,121
	2 Cyanosis	398	420	459	456
	3 Spina Bifida.....	350	394	386	402
	4 Other Malformations ...	420	441	424	403
	5 Teething	3,896	4,251	3,812	4,116
	ORDER 2.				
	1 Paramenia	47	59	61	75
	2 Childbirth (*see* Metria) .	2,186	2,109	2,137	2,433
	ORDER 3.				
	1 Old Age	28,442	27,373	26,780	27,268
	ORDER 4.				
	1 Atrophy and Debility ...	26,930	29,291	27,077	28,193
V.	ORDER 1.				
	(ACCIDENT OR NEGLIGENCE.)				
	1 Fractures and Contusions	5,417	5,589	5,397	5,852
	2 Gunshot	103	120	111	108
	3 Cut, Stab.....	81	41	54	82
	4 Burns and Scalds	3,166	3,053	2,767	2,766
	5 Poison	240	258	262	277
	6 Drowning	2,264	2,351	2,463	2,488
	7 Suffocation	1,061	1,014	1,219	1,147
	8 Otherwise	659	761	782	1,052
	ORDER 3.				
	(HOMICIDE.)				
	1 Murder and Manslaughter.....	377	320	418	399
	ORDER 4.				
	(SUICIDE.)				
	1 Gunshot Wounds	59	59	54	56
	2 Cut, Stab.....	276	257	215	257
	3 Poison	156	122	128	121
	4 Drowning	219	225	204	245
	5 Hanging	569	592	611	562
	6 Otherwise	86	92	105	78
	ORDER 5.				
	(EXECUTION.)				
	1 Hanging	10	11	17	21
	Other Violent Deaths (not classed)	32	120	137	169
	Sudden and other Deaths (Cause unascertained) ...	8,661	7,754	7,566	7,963

DELIRIUM TREMENS.—From *Deliro*, to be crazy: *Tremo*, to tremble. Synon. *Delirium Ebriositatis; Mania a Potu; Delirium Vigilans.*—An acute attack of poisoning by alcoholic drinks. Delirium characterised by hallucinations, fear, trembling of muscles of extremities, weakness, and watchfulness. Natural tendency of the disorder to terminate in a critical sleep, at end of from forty-eight to seventy-two hours from commencement of delirium.

Symptoms. Sleeplessness. Loss of appetite. Nausea. Constipation. A busy, but not violent, delirium: aggravated towards night. Constant talking or muttering. Tremulous motions of hands: constant twitching of facial muscles. Hallucinations of sight and hearing. A dread or suspicion of every one: a belief that strangers are under the bed, or listening at door. Mental with bodily prostration. A generally excited and eager manner. In severe cases, an increase in sulphates and urea, with diminution of phosphates, in urine. Varies thus from phrenitis, in which phosphates are in excess.

In *favourable* cases, critical sleep, lasting twelve or more hours; from which patient wakes cured, though weak. In *fatal* examples, watchfulness continues; muttering delirium, subsultus tendinum, and exhaustion; great prostration, coma or convulsions or fatal syncope. Death usually between third and seventh days.

Treatment. Critical sleep to be brought about as soon as possible. Ice to cool irritable stomach. Salines, 348, 349, 356. Milk, raw eggs, beef tea. Brandy and egg mixture, 17. Ammonia and bitters, 361, 371. Ether, brandy, and bark, 367. Sumbul and hop, 369. Morphia, chloroform, and Indian hemp, 317. Subcutaneous injection of morphia, 314. Tincture of digitalis, in half ounce doses, once or twice repeated. Patient to be restrained by one or two good attendants. Apartment to be kept quiet and dark. All sources of mental irritation to be removed. Cold affusion, or cold shower bath, sometimes very useful.

Avoidance of over-stimulation, and excessive doses of opium. Use of strait-waistcoat very rarely advisable, as it increases irritation.—See *Dipsomania.*

DENGUE.—Synon. *Scarlatina Rheumatica; Eruptive Epidemic Fever; Eruptive Rheumatic Fever; Dandy Fever; Break-bone Fever.*—In certain parts of East Indies, Southern States of America, as well as in Philadelphia and New York, a peculiar infectious fever sometimes prevails, in which an eruption like that of scarlatina is combined with severe rheumatic pains in limbs and joints. Sometimes, throat is implicated; occasionally, testicles enlarge; often, lymphatic glands of neck and groin swell. Pains about shoulders and arms, loins and hips, thighs and legs; great soreness of muscles and bones; headache and flushing of face; rapid pulse and coated tongue; nausea and vomiting; prostration. The disease generally lasts about eight days. Demands the use of antacid aperients, salines, colchicum with opium, and bark or quinine.

DIABETES MELLITUS.—From Διά, through; βαίνω, to move:

Μέλι, honey. Synon. *Melituria; Paruria Mellita; Glucosuria; Glucohæmia; Saccharine Diabetes.*—A complicated chronic disease, due to inefficient performance of some important function. Characterised by secretion of a large quantity of urine containing glucose or grape sugar.

Symptoms. Come on insidiously. Malaise: sense of feverishness. Excretion of large quantities of urine, having a faint apple-like odour, and a high sp. grav. 1035—1050. Dryness and harshness of skin. Constipation: hard dry fæces. Constant thirst. Failure of general health: muscular weakness; loss of sexual power. Pain about loins. Coldness of extremities, with sense of burning in hands and feet. Increasing debility, diminution in weight, shrinking of frame, œdema of legs, and sometimes albuminuria. Chloroform-like smell of breath. Sponginess of gums, with decay of teeth. Mental depression and irritability. Constant sense of sinking at stomach, with voracious appetite. Tendency to double cataract: to boils.—Often becomes associated with phthisis after a time. In confirmed cases, death from some intercurrent low form of inflammation—bronchitis, pleurisy, pneumonia, or peritonitis; from gangrene of legs; phthisis; or from gradual exhaustion.

Sugar to be detected in urine by fungus, potash, copper, or fermentation tests.

Treatment. *Diet:*—To be nutritious, yet free from saccharine and amylaceous materials. Meat, poultry, game, ham or bacon, white fish, eggs. Milk, or preferably cream. Neufchatel, Stilton, or cream cheese. Butter. Greens, green leaves of lettuce, spinach, watercresses. Bran loaf, 9. Almond rusks and biscuits. Gluten bread. Stale, well-fermented bread thoroughly toasted. Spring water, iced water, soda water, Vichy water. Tea sweetened with glycerine. Weak beef tea, mutton broth. Dry sherry: Bordeaux wine: dry Hungarian wines: Burgundy: weak brandy and water: whisky and water.—*Forbid:*—Sugar. Pastry. Fruit. Confectionery. Potatoes. Carrots. Parsnips. Beetroot. Turnips. Radishes. Maccaroni. Rice, sago, tapioca, arrowroot. Liver. Oysters, lobsters, crabs, mussels. Beer; raw spirits; liqueurs. Coffee.

Drugs:—Opium (gr. ½—1, thrice daily). Opium, ipecacuan, and nitre, 324. Citrate of ammonia or potash, with steel, 403. Reduced iron, aloes, and nux vomica, 404. Strychnia. Quinine and opium. Creasote, 41. Cod liver oil; or suet boiled in milk. Pepsine, 420. Castor oil: Seidlitz powders: Compound powder of rhubarb and magnesia: Aperient enemata.

General remedies:—Warm clothing: flannel or chamois leather next the skin of trunk and extremities. Hot water or vapour baths. Turkish bath, 130. Mineral springs of Vichy, 479. Carlsbad, 496.

Remedies which have been employed:—Carbonate of soda. Acetate of potash. Tartrate of potash and soda. Carbonate of ammonia. Alum. Lime water. Yeast. Large quantities of sugar. Potato bread. Iodine. Nitric acid. Phosphoric acid. Sulphur. Turpentine. Permanganate of potash. Inhalation of oxygen gas.

DIARRHŒA.—From *Διαῤῥέω*, to flow through. Synon. *Coprorrhœa; Catarrhus Intestinalis; Summer or Bilious Diarrhœa; English Cholera; Purging.*—A relaxed state of bowels, *i.e.* the frequent evacuation of loose or liquid stools, without any co-existent inflammation of intestines.

Symptoms. Purging. Nausea. Furred tongue. Foul breath. Flatulence and griping pains. Acid eructations. Tenesmus. Stools unhealthy: consist either of liquid fæces, or a watery fæculent mucus, or thin frothy serum, or of pale yeast-like matter. In severe summer or English cholera, evacuations often consist chiefly of bile: violent abdominal pains, cramps in legs, chilliness, and depression.

Treatment. *Expulsion of offending matter from intestinal canal:*—Castor oil, 164. Castor oil and opium, 114. 164. Tincture of rhubarb. Compound powder of rhubarb. Blue pill and rhubarb, 171. Warm water enema. Calomel.

Subsequently, or at first when cause has been removed by spontaneous purging:—Ether and opium, 85. Chloroform, morphia, and Indian hemp, 317. Chalk mixture, with catechu and opium, 97. Rhatany, 96. Matico and rhatany, 105. Aromatic sulphuric acid and opium, 100. Liquid extract of bael, 58, 97. Kino and logwood, 108. Compound powder of catechu. Aromatic powder of chalk and opium. Powder of kino and opium. Powder of ipecacuan and opium. White bismuth, 65, 112. Astringent enemata, 113. Enema of opium. Morphia suppository. Vegetable charcoal, 98.—Careful diet:—Mucilaginous drinks. Mucilage of gum Arabic. Tapioca, sago, or milk arrowroot. Saccharated solution of lime and milk, 14. Custard or rice puddings. White fish. Pepsine, 420. Port wine. Brandy and cold water. Ice.—Linseed poultices. Turpentine stupes. Wearing a flannel round abdomen. Avoidance of damp and cold.

Remedies sometimes used:—Nitrate of silver. Chloride of silver. Sulphate of copper. Ammonio-sulphate of copper. Tannate of bismuth. Alum. Cinnamon. Oxide of zinc. Iron-alum. Tincture of perchloride of iron. Acetate of lead. Ergot of rye. Dilute sulphuric acid. Blisters. Ice to spine &c.

DIPHTHERIA.—From *Διφθέρα*, a skin or membrane. Synon. *Angina Maligna; Cynanche Membranacea; Putrid Sore Throat; Malignant Quinsy.*—An epidemic and contagious sore throat of great severity, due to toxæmia; being attended with much prostration, and characterised by exudation of false membranes on tonsils and adjacent structures.—When followed by recovery, it often leaves an altered state of voice, partial paralysis of muscles of deglutition, weakness of upper extremities, impaired vision, and other secondary nerve affections.—Children more obnoxious to this specific blood-disease than adults. Most common amongst poor, or such as reside in damp situations and badly drained houses.

Symptoms. Commence gradually; feelings of depression and muscular debility, headache, nausea, slight diarrhœa, chilliness, drowsiness, and sense of stiffness about neck. Then, tonsils get in-

flamed and swollen: tenderness of glands about angles of lower jaw. Inflammatory action spreads to velum, uvula, posterior part of pharynx. Perhaps difficult deglutition.—If resolution do not occur, characteristic feature becomes manifested,—effusion of a plastic fibrinous material. This may first appear in nasal fossæ, or on soft palate, on one tonsil, or on back of pharynx. Exudation looks like ash-coloured specks; which, enlarging and coalescing, form large patches resembling damp dirty wash-leather. As disease spreads, false membrane increases in thickness and extent: firmly attached to mucous membrane beneath: if forcibly removed, a new patch soon forms: spreads to cheek and gums, œsophagus, or through glottis into larynx and trachea. When membrane begins to separate and decompose, horribly fœtid breath: when thrown off, there may be left ulceration, sloughing, or gangrene; or tissues gradually assume a healthy appearance. True diphtheritic membranes sometimes form on abraded cutaneous surface, conjunctiva, mucous coat of vagina or rectum &c.

Constitutional symptoms perhaps slight at first. Soon, prostration and restlessness. Only moderate fever. Pulse increases in rapidity. Saliva often dribbles away. Breath fœtid. Disinclination for exertion or food. Dysphagia often absent. Attacks of hæmorrhage occasionally, from nose, fauces, or bronchi. Purpura. Albuminuria.—Death from exhaustion, hæmorrhage, ichorhæmia, uræmia, gangrene, or asphyxia,—consciousness remaining till close. Sometimes, fatal event due to thrombosis.—In event of recovery, convalescence tardy. Anæmia. Secondary nerve affections: paralysis, neuralgia, defective vision.

Treatment. No specific known. By remedies of a supporting nature, patient may be often guided through the great danger, which is present in every case.

Locally:—External applications — leeches, blisters, poultices, fomentations—to throat, useless or injurious. At commencement, inhalation of acid vapour—three ounces of vinegar to pint of boiling water. When pellicle has formed,—spray of hot atomized lime water, 262. Painting, with tincture of perchloride of iron and glycerine; turpentine; strong solution of nitrate of silver; solution of chlorinated soda. Hydrochloric acid gargle, 248. Borax gargle, 250. Chlorinated soda gargle, 254. Creasote gargle, 255. Gargle of hot saccharated solution of lime. *Avoidance* of solid nitrate of silver, nitric acid, hydrochloric acid, and other caustics. Tearing away of exudation, injurious.

General remedies:—In early stage, emetic of ipecacuan and ammonia, 233. Cream of tartar drink, 356. Chlorate of potash drink, 360. If there be depression, hæmorrhage, or albuminuria, commence with tincture of perchloride of iron, 392. Quinine and iron, 380. If thrombosis be feared, ammonia and bark, 371. Chlorate of potash, 61. Iodide of potassium, 31. Sulphite of soda, or magnesia, 48. Opium. Essence of beef, 3. Eggs, cream, and beef tea, 5. Lime water and milk, 14. Brandy and eggs, 17. Brandy. Port wine. Champagne. Milk, or cream. Ice, to suck very freely.

Patient to be kept in bed, from commencement; flannel clothing often advantageous. Air of room to be pure and warm (70° F.); to be kept moist by evaporation of boiling water. Sinapisms to epigastrium, if there be sickness. Simple enemata, or castor oil, if there be constipation. Linseed poultices to loins, or hot fomentations, if suppression of urine come on. Chloroform inhalation, where attacks of dyspnœa are paroxysmal. Tracheotomy or laryngotomy, when exudation obstructs larynx. When swallowing is prevented, nutrient enemata, 21, 22, 23.—*Directly convalescence is firmly established:*—Sea air. Very generous diet. Cod liver oil. Quinine and steel. Strychnia, or nux vomica. Faradization.

DIPLOPIA.—From *Διπλόος*, double; *ὄπτομαι*, to see. Synon. *Ambiopia; Dittopsia; Double Vision.*—Arises from some derangement in the visual axes, or some irregularity in density or curvature of dioptric media, or some disease of retina or optic nerve.—See *Amaurosis.*

DIPSOMANIA.—From *Διψα*, thirst; *μανια*, madness.—An intense craving for intoxicating liquors; attended with a protracted state of general depression and restlessness. An unphilosophical and dangerous view to regard a dipsomaniac as an irresponsible being. Hard-drinking a degrading vice: difficult to discontinue, the more it is indulged in.

Excessive use of alcoholic stimuli leads to:—Induration of portions of nervous centres. Congestions of respiratory organs. Amyloid and fatty degeneration of liver. Chronic inflammation and thickening of walls of stomach. Disease of substance of heart, and of kidneys. Cirrhosis, or gin drinker's liver. Dropsy. Tuberculosis.

Treatment. Total abstinence from intoxicating drinks. Henbane, hop, or small doses of opium, to avoid sleepless nights. Bark and mineral acids, 376. Quinine, 379. Quinine and nux vomica, 387. Phosphate of iron, 405. Phosphate of zinc, 414. Oxide of zinc, 415. Hypophosphite of soda or lime, 419. Pepsine, 420. Nourishing food. Milk. Fruit syrups in soda water. In almost hopeless cases it may be justifiable to substitute opium for alcohol. Opium-eating much less injurious than alcohol to general health; while the subject of it is not an intolerable nuisance like the drunkard.—See *Delirium Tremens.*

DIURESIS.—From *Διὰ*, through; *οὐρέω*, to pass urine. Synon. *Diabetes Insipidus.*—A condition in which an excessive quantity of pale limpid urine is secreted, free from sugar or other abnormal ingredient.

Symptoms. Insatiable thirst (polydipsia), with excretion of large quantities of urine. Watery constituents of latter alone increased; total amount of urinary solids not greater than in health: in exceptional cases, however, the solids and particularly the urea have been above the average (polyuria). General health usually suffers: annoying thirst and frequent micturition cause bad nights. Sometimes, dropsy sets in.

If there be an excess of urine over amount of liquid taken, one of three explanations must be adopted:—(1) Either the body becomes poorer in water, and so loses weight. (2) Or, water is absorbed by skin and lungs. (3) Or, water is formed in system by direct union of its elements—oxygen and hydrogen (Parkes).

Treatment. Tincture of perchloride of iron, 101. Phosphoric acid and nux vomica, 376. Iron alum, 116. Gallic acid, 103. Opium. Warm baths. Cod liver oil. Enforced abstinence from fluids useless.

Remedies sometimes employed:—Ergot of rye. Mineral acids. Tannic acid. Oxide of zinc. Iodide of potassium. Green iodide of mercury. Valerian. Assafœtida. Camphor. Nitrate of potash.

DRACONTIASIS.—From Δράκων, a serpent. Synon. *Malus Dracunculus; Helminthoncus Medinensis.*—A helminthic disease, produced in the human body by the Guinea-worm.—Dracunculus medinensis, Filaria medinensis, or Guinea-worm, has a slender cylindrical body, sometimes nearly as thick as a crow-quill, and from one to twelve feet in length. Endemic in some parts of Asia and Africa, especially in marshy districts: individuals returning from these countries occasionally bring this nematode helminth with them.—Common seat of the Guinea-worm, in human body, is the subcutaneous areolar tissue of feet and legs.

Symptoms. May be absent for some months: then a feeling of irritation in affected part, when a cord-like ridge may be felt. Constitutional disturbance: fever, headache, nausea, colic, debility. A kind of boil forms: sometimes pustule breaks, and head of worm protrudes.

Treatment. *Curative:*—When head protrudes, a thread to be placed round it and rolled on a piece of stick or bougie; day by day drawing worm out, and winding it round the stick until extraction is complete. When worm does not protrude, it may be exposed by incision; parasite being removed in a loop, or a wedge of wood being inserted around which it is to be wound without fracture.

Prophylactic:—Feet to be well-protected, when travelling in districts where Guinea-worm is found. Thorough drying of feet after bathing, or wading through marshy districts. Avoidance of lying on the ground with any part of body exposed to the soil.

DROPSY.—Formerly correctly called *hydropsy*, from Ὕδωρ, water, and ὄψις, an appearance. An accumulation of watery or serous liquid in some one or more of the natural serous cavities of the body, or in the meshes of the areolar tissue, or in both, often occurring independently of inflammation.

A result of over-distension of the veins and their capillaries, and hence may arise from many different conditions. The most common are:—Pressure of tumours, enlarged glands, gravid uterus &c. on veins. Structural disease of liver, impeding return of blood through the portal system of veins. Valvular disease of the heart. Retarded circulation, with increased fulness of veins, in pulmonary emphysema, bronchitis &c. Chronic inflammatory hyperæmia, as is seen in

strumous ascites, hydrocele &c. Blood poisoning,—as in acute renal dropsy, where the kidneys become congested and inflamed, the circulation through their capillaries is impeded, and urea is retained in the blood. And anæmic or watery blood.—See *Anasarca; Ascites; Hydrocephalus; Hydrothorax; Hydropericardium; Hydrocele &c.*

Treatment. Purgatives. Diuretics. Diaphoretics. Emetics. Alteratives. Tonics. Tapping. Incisions or acupunctures. Issues.

Purgatives:—Calomel, 159. Jalap, 140, 159. Compound jalap powder. Compound scammony powder. Compound pill of gamboge. Elaterium, 157. Croton oil, 168. Black hellebore. Tobacco. Oil of turpentine, 190. Acid tartrate of potash, 228. Rhubarb. Colocynth. Resin of podophyllum.

Diuretics:—Acetate of potash, 219. Digitalis, 219. Squills, 219. Nitrate of potash, 212. Buchu, 222. Senega, 214. Compound spirit of horseradish. Spirit of nitrous ether. Tincture of cantharides. Oil or spirit of juniper, 229. Infusion of uva ursi. Liquor potassæ. Fomentations to loins. Cupping or leeches to loins. Dry cupping over the kidneys.

Diaphoretics:—Tartarated antimony, 210, 213. Antimonial powder. Opium. Powder of ipecacuan and opium. Elder-flower water. Guaiacum, 43. Hot water baths, 119. Hot air or vapour baths, 130. Wet-sheet packing, 136.

Emetics:—Ipecacuanha, 231, 233. Sulphate of zinc, 232. Mustard.

Alteratives:—Corrosive sublimate, 27. Compound pill of calomel. Mercury and chalk. Blue pill. Colchicum, 46. Liquor arsenicalis, 52. Chlorate of potash, 61. Iodide of potassium, 31.

Tonics:—Nitric acid, 147. Nitro-hydrochloric acid, 378. Tincture of perchloride of iron. Citrate of iron and ammonia. Citrate of iron and quinia. Iodide of iron, 32. Tartarated iron. Cod liver oil.

DROWNING.—For the restoration of the asphyxiated from submersion, see *Suspended Animation.*

DUODENAL DISEASES.—From *Duodeni*, twelve; because this portion of bowel was said by the ancients to be as long as the breadth of twelve fingers.—Great difficulty in diagnosing diseased conditions of duodenum from those of small intestines generally.

1. Duodenitis.—Synon. *Dodecadactylitis.*—Acute inflammation seldom limited to duodenum: generally complicated with similar disease in stomach, jejunum, or ileum; or with inflammation of gall-bladder, or under surface of liver, accompanied by jaundice.

Symptoms. Probably pain about epigastric and right hypochondriac regions; perhaps only becoming severe about three hours after taking food. Thirst. Unaltered or even increased appetite. Nausea and vomiting. Diarrhœa, with unnatural and offensive stools. Weakness, mental anxiety, and loss of flesh.—When complicated with inflammation of the biliary apparatus, or when due to the irritation set up by a gall-stone (which may cause inflammation, ulceration, and perforation of the walls of the gall-bladder and intestine, so as to allow of its escape into the duodenum), there will be jaundice

with the usual results. If there be also pancreatic disease the liquid stools will contain fatty matters.

Treatment. Castor oil, or calomel as an aperient. Opium. Solution of acetate of ammonia. Mucilaginous drinks. Milk diet. Linseed poultices. Poppy-head fomentations.

2. Duodenal Dyspepsia.—Either the result of chronic or sub-acute inflammation, or simply of impaired function.

Symptoms. Pain about duodenum some three hours after food has been taken. Nausea. Attacks of faintness. Occasionally, jaundice; especially when the disease is caused by abuse of alcoholic drinks. Well-marked tenderness about right hypochondrium; partly owing to inflamed condition of intestine, and partly to sympathetic irritation about liver.

Treatment. Mercury and chalk. Mercury and chalk with opium, 34. Rhubarb and blue pill, 171. Nitric acid, senna, and taraxacum, 147. Nitro-hydrochloric acid, 378. Quinine and rhubarb, 178, 370, 385. Ipecacuan, rhubarb, and oxide of silver, 179. Ammonia and ox bile, 170. Ammonia and chiretta, 63.—See *Dyspepsia.*

3. Perforating Ulcer of Duodenum.—Presents, in a mitigated form, many of the symptoms of ulcer of stomach. There may be diarrhœa with bloody stools; nausea and vomiting; great prostration &c. Fatal perforation sometimes occurs suddenly where premonitory symptoms have been mild. A sloughing ulcer is perhaps liable to form in upper part of duodenum within a few days of a severe burn.—See *Gastric Ulcer.*

4. Cancer of Duodenum.—As a primary affection very rare. Not unfrequently the duodenum is secondarily involved in progress of hepatic cancer, and in malignant disease of pancreas or neighbouring lymphatic glands. Colloid form most common. When the diseased mass presses on the ductus communis there will be jaundice.—Death may occur from inanition, or from peritonitis the result of perforation, or from obstruction of the bowel.—See *Gastric Cancer.*

DYSENTERY.—From Δυς, difficulty or badness; ἔντερον, intestine. Synon. *Colitis; Colorectitis; Bloody Flux.*—A specific inflammation and ulceration of mucous lining (occasionally also of other tissues) of the colon, especially perhaps of lower part of this gut and rectum; attended with febrile disturbance, severe griping pains, mucous and bloody stools, and great prostration. Has been improperly termed *colitis* (*Colon*, the large gut; terminal *-itis*); cases occurring where ulceration does not stop at ilio-cæcal valve, but extends several inches up small intestines.

Severe dysentery rare in this country. Sometimes breaks out in unhealthy localities. In tropics often very fatal.—Has been ascribed to wet and cold, contagion, malaria, polluted water, intemperance, deprivation of fresh fruit and vegetables, bad or insufficient or salt food, insufficient clothing &c.

Symptoms. *Acute form:*—Uneasiness and pain in abdomen of a griping character (*tormina*, from *Torqueo*, to torture), with frequent

inclination to go to stool. As ulceration commences, desire to empty bowel becomes more frequent, and is followed by shorter interval of ease. Evacuations scanty, thin, mucous, bloody; mixed with small hard lumps of fæces (*scybala*, from Σκύβαλον, excrement). The scanty stools produce great distress; griping, and straining without any evacuation (*tenesmus*, from Τείνω, to strain); peculiarly fœtid and dark-coloured motions, mixed with blood and purulent matter and shreds of lymph; and frequent micturition. Urine high-coloured; gives rise to scalding. Sometimes constant desire to micturate, only a few drops coming away at a time (*strangury*, from Στράγξ, a drop; οὖρον, urine). Great constitutional disturbance and prostration.

May end in perforation of bowel and fatal peritonitis: in rupture and fæcal abscess: in ichorhæmia and secondary abscesses: in fatal exhaustion. After healing of ulcerations in favorable cases there may be troublesome constipation from contraction of cicatrices.

Chronic variety:—Most intractable. Often causes atrophy of mucous membrane with degeneration of intestinal glands: or imperfectly cicatrized ulcers remain in tissues of cæcum, colon, or rectum. Most cases recover. Sometimes, however, patient gradually wastes: skin gets dry and scaly: improvement one day with relapse the next: discharges of fæcal matter, mixed with thin pus and blood, most offensive: the exhaustion, pains, tenesmus &c. render death welcome.

Treatment. *Acute:*—Perfect rest in bed, in well-ventilated room. Demulcent drinks. Ice. Farinaceous food: milk or cream: thin broths. Warm bath. Fomentations: linseed poultices: wet compress. A few doses of castor oil (164) if there be lodgment of scybala. Ipecacuanha often most valuable, given thus:—Interdict use of fluids for three hours: apply a large hot linseed poultice, containing two or three tablespoonfuls of mustard, over epigastrium: a full dose of opium in form of enema or suppository: thirty or forty-five minutes subsequently give from thirty to sixty grains of ipecacuan powder in form of bolus, in mucilaginous draught, or wrapped up in wafer-paper; repeating dose, if necessary, at end of six or twelve or twenty-four hours. *Subsequently:*—Opiate suppositories or enemata, 339, 340. If there be weakness and anæmia, salicine; quinine; bark and ether; cascarilla; or some mild preparation of steel. If stools continue numerous and frothy and bloody, bismuth; gallic acid; kino; logwood; sulphate of copper. In scorbutic cases, lemon or orange juice. Generous diet; milk or cream, raw eggs, strong broths, ripe grapes, perhaps stimulants. Restorative soup, 2.

Remedies sometimes employed:—Bloodletting. Leeches to anus. Emetics. Calomel. Compound powder of jalap. Sulphur. Acid tartrate of potash. Nitrate of silver. Tartaric acid. American hellebore (Veratrum viride). Belladonna. Hydrocyanic acid. Narcotine. Infusion of linseed. Mucilage of tragacanth. Tobacco fomentations. Turpentine stupes.

Chronic or subacute:—Residence in a mild, dry, equable climate. Sea voyage. Warm clothing. Constant use of flannel roller round belly. Plain animal food: milk or cream: raw eggs. Grapes:

oranges. Morphia. Chloroform, morphia, and Indian hemp, 317. Liquid extract of bael, 58, 97. Sumbul and ether, 95. Pill of lead and opium (officinal). Sulphate of copper and opium, 106. Nitrate of silver and opium, 107. Kino and logwood, 108. Matico and rhatany, 105. Gallic acid, 103. Alum and sulphuric acid, 115. Tannic acid lozenges. White bismuth, 65, 112. Vegetable charcoal, 98. Iron alum, 116. Tincture of perchloride of iron. Reduced iron. Nitro-hydrochloric acid, 378. Pepsine, 420. Cod liver oil. Quinine, rhubarb, and hop, 370.

DYSMENORRHŒA.—From Δυς, difficulty; μὴν, a month; ῥέω, to flow. Synon. *Paramenia Difficilis; Menstrua Dolorosa; Amenorrhœa Partialis; Laborious* or *Difficult Menstruation.*—Three distinct varieties:—

1. Neuralgic Dysmenorrhœa.—Afflicts nervous women, in delicate health, about time of puberty: or may come on after some years of painless menstruation, especially in those who have never been pregnant.

Symptoms. Malaise, headache, with pain about sacrum and lower part of abdomen for a few days prior to period. Soreness of inner and upper part of thighs. Bearing-down, with sense of pelvic weight. If discharge comes on freely, relief experienced. Commonly, flow is scanty—slight gushes: suffering becomes acute. Pain lessens and returns. Hysteria. Flatulence and constipation. Pain probably in ovaries, rather than in uterus. No swelling or heat of parts.

Treatment. *During paroxysm:*—Hot hip bath for thirty or forty-five minutes. Bath, with extract of poppies and carbonate of soda (an ounce of each). Pessary of oxide of zinc and belladonna, or of iodoform, 423. Indian hemp, aconite, ether, and juniper, 342. Morphia, chloroform, and Indian hemp, 317. Opium and henbane, with hot gin and water, 343. Hypodermic injection of morphia, 314. Linseed, or hemlock, poultice to abdomen and vulva.

During interval:—Quinine and mineral acid, 379. Bark, phosphoric acid, and aconite, 376. Salicin, 388. Hypophosphite of soda and sumbul, 419. Cod liver oil, 389. Compound rhubarb pill. Effervescing citrate of magnesia. Taraxacum juice. Pepsine, 420. Iodide of lead and belladonna pessaries, 423. Chamomile tea. Nourishing food: substitution of milk or cocoa for tea and coffee. Wine; weak brandy and water; bitter ale. Avoidance of sexual intercourse. Warm sea baths.

2. Congestive Dysmenorrhœa.—Synon. *Membranous Dysmenorrhœa.*—Generally occurs at later period of life than neuralgic form.

Symptoms. Suffering begins four or five days before each period. Backache; weariness and restlessness; sense of pelvic weight; irritability of bladder. Hæmorrhoids; frequent flushings; throbbing uterine pain. Discharge comes on gradually: scanty at commencement; relief follows abundant flow. Clots, and shreds or flakes of membrane expelled: sometimes, pear-shaped casts of uterine cavity,

formed of epithelial lining of uterus, analogous to decidua. Uterus found congested, lips œdematous, on examination; sometimes displaced: ovaries tender. Swelling and tenderness of breasts.

Treatment. *During paroxysm:*—Same as for neuralgic form. Three or four leeches to labia uteri. Scarification of labia.

During interval:—Mercury and conium, or iodide of lead and belladonna, pessaries, 423. Corrosive sublimate, 27. Iodide of potassium, 31. Bromide of potassium, 42. Mercurial vapour baths, 131. Colchicum, 46. Cod liver oil. Plain living: absence of stimulants. Avoidance of sexual intercourse. Moderate exercise in open air. Sea air.

3. Mechanical Dysmenorrhœa.—That form in which there is stricture of internal or external os uteri; or a narrowing of entire canal of cervix; or some uterine tumour; or uterine displacement—retroflexion or anteflexion. Ensuing remarks apply only to the variety due to stricture of internal or external os, or to narrowing of entire cervical canal; conditions causing sterility as well as dysmenorrhœa.

Symptoms. Indicative of obstruction to escape of menstrual fluid. A scanty flow: discharge escapes in gushes; each gush attended by pain. Backache. Irritability of bladder. Congestion and tenderness of ovaries. Examination reveals a very small os uteri; or an orifice of normal size, stricture being detected by uterine sound at internal os. Sometimes, os uteri only slightly smaller than natural; but under influence of menstrual molimen spasmodic contraction occurs, with all the suffering of organic stricture.

Treatment. Incision of uterine canal with hysterotome (Routh's or Simpson's); followed by plugging with oiled lint, or introduction of a spring stem pessary (Greenhalgh's). Dilatation, by sea-tangle or sponge-tents, less likely than incision to effect permanent cure; and more apt to be followed by pelvic cellulitis, metritis, or ovaritis. Dilatation by bougies, useless.

DYSPEPSIA.—From Δυς, difficulty; πέπτω, to digest. Synon. *Apepsia; Digestio Difficilis; Concoctio Tarda; Indigestion.*—Anything which interferes with the healthy action of stomach and intestines may give rise to indigestion.

Symptoms. Variable in nature and severity. Loss of appetite. Pain, weight, and fulness at epigastrium, especially after eating. Flatulence. Nausea and vomiting. Costiveness alternating with diarrhœa. Furred tongue and foul breath. Palpitation. Headache. Pains in loins and limbs. Heartburn. Cramp in stomach. Waterbrash. Hypochondriasis.

In *slow digestion* from scanty secretion of gastric juice,—a feeling of fulness and distension in left hypochondrium, and at pit of stomach, after food. Flatulence; sour eructations; constipation; coated tongue; palpitation and irregular action of heart; headache and mental depression &c.

Treatment. *General Directions:*—Digestion to be improved by

means which invigorate system generally:—Rest and early hours. Relaxation from severe studies, or from harassing cares and anxieties of business. One day's holiday in every seven. Change of air: sea-bathing. Cold or tepid sponging. Wet compress over stomach, 136. Horse exercise: brisk walking. Disuse of tobacco. Alcoholic stimulants in great moderation.

Regulation of Diet:—Plain food in small quantities. Gruel; sago; arrowroot. Weak tea with milk. Milk and water. Lime water and milk. Stale, or unfermented, or aërated bread. White fish,—especially sole, whiting, brill, turbot. Poultry; sweetbread; tripe; mutton; venison; pheasant; hare. Dry sherry: dry Ruster, Ofner Auslese, Carlowitz, Szamarodnya Muscat, or other white Hungarian wines. Weak cold brandy and water. Simple aërated water: soda water. Coffee, without chicory, but not after dinner.—*Avoidance of:*—Vegetables, save cauliflower, asparagus, vegetable marrow: of raw fruit,—save grapes and oranges: of pastry, cheese, beer, port wine, and undiluted spirits: of rapid mastication and hurry at meal times.

Drugs:—Pepsine, 420. Pepsine and aloes, 155. Pepsine and steel, 394. Rhubarb. Ipecacuanha and rhubarb, 179. Quinine and rhubarb, 178. Rhubarb and blue pill, 171. Rhubarb and magnesia, 165. Ammonia and rhubarb, 161. Purified ox bile, 170. Nux vomica, 175. Steel and hydrochloric acid, 397. Steel and citrate of potash, 403. Quinine, rhubarb, and hop, 370. Carbonate of ammonia, 361. Nitro-hydrochloric acid, 378. Salicin, 388. Nitrate of silver. Oxide of silver. White bismuth. Bicarbonate of potash. Ipecacuanha. Blue pill. Mercury and chalk. Taraxacum. Nitric acid. Saccharated solution of lime. Wood charcoal. Oxalate of cerium. Hydrocyanic acid. Lactic acid. Tannic acid. Gentian. Quassia. Hop. Kino. Serpentary. Chiretta. Cascarilla. Calumba. Compound tincture of cardamoms.—See *Gastralgia; Gastrodynia; Pyrosis.*

DYSPHAGIA.—From Δυς, difficulty; φάγω, to eat. Synon. *Deglutitio Impedita; Difficulty of Deglutition.*—Difficulty in swallowing is a prominent symptom in disease of pharynx and œsophagus,—as inflammation, ulceration, stricture, spasmodic contraction, polypus, or cancer. It may also arise from glossitis, acute or chronic tonsillitis, diphtheria, croup. From, erysipelatous or other inflammation of areolar tissue of neck. Retro-pharyngeal abscess. Glosso-laryngeal paralysis; paralysis of muscles of deglutition; progressive paralysis of insane; progressive muscular atrophy; paralysis agitans. Tetanus. Myelitis. Malignant, syphilitic, and tubercular ulcerations about epiglottis. Syphilitic ulceration of velum and fauces. The pressure of aneurismal or other tumours. Spasm of pharynx and œsophagus, as in hydrophobia. Inflammation, ulceration, or œdema of larynx. And rarely, from disease of laryngeal cartilages.

DYSPHONIA CLERICORUM.—From Δυς, difficulty or pain; φωνή, the voice: *Clericus*, a clergyman. Synon. *Follicular disease of Pharyngo-laryngeal membrane.*—Frequently, a nervous complaint; unattended in early stage by any organic lesion, but consisting of

hyperæsthesia or irritability of investing membrane of fauces. Subsequently, congestion or inflammation or relaxation of mucous membrane; enlargement of tonsils; elongation of uvula; irritation, inflammation, morbid deposit, and ulceration of mucous follicles about isthmus faucium.—Clergymen, barristers, public speakers, actors, singers &c. most liable to this disease.

Symptoms. Uneasy sensations in upper part of throat, with frequent inclination to swallow, as if there were something in œsophagus. Coughing, hawking, and spitting of phlegm. Uneasiness or pain about larynx. Diminution in power of voice: hoarseness, especially towards evening: sometimes aphonia. Unhealthy granular appearance of fauces. Mucous follicles seem to be filled with yellowish matter. A viscid muco-purulent secretion adhering to palate and velum.

Treatment. *Early stage:*—Quinine and iron, 380. Steel and pepsine, 394. Quinine and nux vomica, 387. Phosphate of iron, 405. Iron alum, 116. Cold shower baths, or sea bathing. Rest of voice. Temporary change of scene and occupation.

Confirmed stage:—Iodide of potassium, 31. Iodide of iron, 32, 390. Iodide of ammonium, 38. Bromide of ammonium, 37. Corrosive sublimate, 27. Phosphate of zinc, 414. Strychnia and steel, 408. Steel and chlorate of potash, 402. Quinine, steel, and arsenic, 381. Phosphoric acid, nux vomica, and bark, 376. Cod liver oil, 389. Nourishing food. Sea air. Undercliff, 434. Torquay, 436. Pau, 443. Malaga, 445. Algiers, 451.

Local applications:—Inhalation of atomised alterative or astringent fluids, 262. Sponging diseased parts, including interior of larynx, with solution of nitrate of silver (gr. 40—60 of crystals to fl. oz. j). Outside of throat to be protected: beard to be worn. Excision of tonsils, if they be affected with chronic enlargement and induration.

DYSPNŒA.—From Δυς, difficulty; πνέω, to breathe. Synon. *Pseudo-Asthma; Respiratio Difficilis; Short Breath.*—Difficulty of breathing a prominent symptom in many acute diseases. May be due to poisoned or impoverished state of blood; dropsy; hysteria; paralysis of muscles of respiration; obstruction of air-tube by pressure of aneurismal and other tumours, foreign bodies, false-membranes, œdema of glottis; asthma; laryngismus stridulus; disease of lungs; or to disease of heart.

ECLAMPSIA NUTANS.—From Ἐκλάμπω, to emit brilliant light: *Nuto*, to nod. Synon. *Salaam Convulsions of Infancy.*—A rare disease of infants: attended with a frequent bowing of the head. Probably a form of epilepsy. Sometimes leads to impairment of intellect.

Symptoms. A peculiar, involuntary, rapid bowing forward of the head, and occasionally of the body. Bowings repeated in rapid succession: attacks come on in paroxysms several times in day. Most severe seizures usually occur in morning, on awaking from night's

rest. After a time,—cerebral symptoms; convulsions; pure epilepsy; hemiplegia or paraplegia; general wasting. In favourable cases, symptoms remit at end of some months: bodily health completely restored in two or three years.

TREATMENT. Intestinal secretions to be kept healthy by mild alteratives,—mercury and chalk, rhubarb and soda, syrup of senna. Tonics,—bark and ammonia; quinine; phosphate of iron and lime &c. 405. Cod liver oil, 389. Nourishing food. Warm clothing. Sea air. Tepid salt water baths. As *palliatives*,—chloroform inhalation: small doses of hydrocyanic acid. Opium aggravates the attacks.

ECSTASY.—Ἔκστασις, a deep trance; from Ἐξίστημι, to put a person out of his natural state. Synon. *Catalepsia Spuria; Trance.* —A condition analogous to the cataleptic. Patient insensible to all external impressions: absorbed in contemplation of some imaginary object. Eyes immovably fixed: impassioned sentences, fervent prayers, psalms and hymns are recited with great expression. Religious fanatics, by encouraging some predominant idea, fall into a state resembling incipient stage of monomania. "Gift of unknown tongues" mostly manifested by nervous women in a morbid condition. Faith, imagination, enthusiasm, and especially an irresistible propensity to imitation, will explain the origin of tarantism, dancing mania, convulsionaires of St. Medard &c.—For treatment see *Hysteria.*

ECTHYMA.—From Ἐκθύω, to break out in eruptions. Synon. *Furunculi Atonici; Dartre Crustacée; Phlyzacia; Papulous Scall.* —A non-contagious inflammation of the skin; characterised by large, round, prominent pustules, occurring upon any part of the body. Pustules usually distinct; seated upon a hard inflamed base; terminate in thick dark-coloured scabs, which leave superficial ulcers followed by cicatrices.—May be *acute*, and preceded by lancinating pains with fever: more commonly *chronic*, and due to bad living &c. Often met with on scalp of badly nourished infants. In *ecthyma cachecticum*, ulcers assume an unhealthy appearance: general health much deteriorated.

TREATMENT. *Internally:*—Mineral acids and bark, 376. Nitro-hydrochloric acid, 378. Quinine and steel, 380. Quinine, steel, and arsenic, 381. Steel and aloes, 154. Steel and sulphate of magnesia, 166. Iodide of potassium. Opium. Henbane. Cod liver oil. Nourishing food.—*Locally:*—Warm or tepid baths. Gelatine baths, 132. Water dressing, dilute solution of subacetate of lead, oxide of zinc ointment, or subacetate of lead ointment to the scabs or ulcers.

ECTROPION.—From Ἐκτρέπω, to turn from. Synon. *Blepharotosis; Divaricatio Palpebrarum.*—Eversion of the eyelid may be due to long-continued conjunctivitis, or to the contraction of one or more cicatrices on the cheek, or to dropping of lower lid from paralysis. More common with lower than upper lid.

ECZEMA.—From Ἐκζέω, to break forth in pustules. Synon. *Running Scall; Humid Tetter.*—A very common non-contagious

skin disease. Usually classified with vesicular diseases: more correctly, belongs either to exanthematous or to pustular orders (Milton). A portion of skin becomes red, inflamed, and stiff; cuticle desquamates; a discharge of serum takes place from follicles and sebaceous ducts of skin; and superficial moist excoriations, or patches of ulceration, covered with scabs or crusts, result. General health depressed: loss of appetite, irritability, restlessness. The disease may be acute or chronic.

Treatment. *Internally*:—Effervescing citrate of magnesia, 169. Rhubarb and magnesia, 165. Rhubarb and blue pill, with henbane, 171. Steel and sulphate of soda, 180, 181. Quinine and steel, 380. Phosphate of iron, 405. Steel wine. Pill of carbonate of iron. Arsenic, 52. Quinine, steel, and arsenic, 381. Steel and arsenic, 399. Cod liver oil, 389. Cod liver oil chocolate. Corrosive sublimate, 27. Red iodide of mercury, 54. Red iodide of mercury and arsenic, 55. Opium. Henbane. Indian hemp.—Animal food: milk or cream: malt liquors, sherry, claret &c. Exercise in pure air.

Locally:—Warm baths. Conium and starch bath, 122. Thin gruel, barley water, or simple water dressing. Subacetate of lead and glycerine lotion, 264. Glycerine and water (equal parts). Carbonate of soda and glycerine lotion, 268. Lime liniment. Saturation of scabs with washed lard or olive oil, and removal by linseed poultices. Oxide of zinc ointment. Diluted nitrate of mercury ointment, 305. Creasote and red oxide of mercury ointment, 301.—In eczema capitis, the hair to be cut off close to scalp.

ELEPHANTIASIS GRÆCORUM.—From Ἐλέφας, the elephant,—owing to the terrible nature of the disease, and its causing the skin to resemble that of the elephant. Synon. *Elephantiasis Anæsthetica; Lazari Malum; True Leprosy.*—A terrible and dangerous constitutional or blood disease: gradually becoming more and more rare. It is endemic: affects the poor and badly nourished in preference to the well-fed: non-contagious, hereditary, and generally incurable.

Characterised by patches of a purplish colour; which are succeeded by elevated tumours, irregular in shape and size, soft and smooth and insensible to touch, and which generally become the seat of unhealthy ulceration. Not met with in temperate climates: there is found to be a predisposition to it towards the polar regions on the one hand, and the tropics on the other. Males suffer more than females. Designated by the Jews *tsaraäth.*

Elephantiasis Græcorum appears to be endemic in Lisbon. The first indication of it, as observed there, is a discoloration, in patches, of skin of face; an elongation and thickening of lobes of ear; and a spreading out of alæ of nose. Face gets beset with tubercles; features become puffed out and traversed by deep lines; lips thicken; whiskers and eyebrows and eyelashes fall off. Gradually, tubercles extend over the limbs; sensibility of mind and body becomes greatly blunted, until there is mere animal life. After some years, tubercles ulcerate; there is ozæna; fingers and toes become gan-

grenous; body exhales a loathsome fetor. Death occurs from exhaustion, diarrhœa, or erysipelas.

Treatment. Arsenic. Nitro-hydrochloric acid. Nitric acid. Iodide of potassium. Iodide of iron. Bromide of potassium. Powdered bark of root of Mudar (Calotropis Gigantea; Asclepias Gigantea). Bevilacqua (Asiatic Penny-wort; Hydrocotyle Asiatica) internally, and locally to ulcerations. Phosphorus. Cod liver oil. Sudorific drinks. Turkish baths. Sulphur baths. Sea water baths. Sea air. Nourishing food: avoidance of salt meats. The Jews of Morocco are said to employ, as a prophylactic remedy, brandy distilled from raisins, pears, figs, and dates.

EMBOLISM.—From Ἔμβολος, a plug.—A term used to designate a fibrinous concretion detached and transported from the interior of the heart or of some vessel, and carried onwards by the blood until the calibre of the vessel becomes too small to allow of further progress. The migratory substance is called an *embolus*.

Symptoms. They depend upon the organ in which the embolus is arrested. Thus, the debris of a clot in a peripheral vein may be stopped in capillaries of liver, or may pass through these vessels, and then become arrested in more minute capillaries of lungs. A large clot fixed in pulmonary artery will induce immediate asphyxia; or if able to pass on into lung, may be the cause of gangrene. So also, obstruction of the chief vessel of a limb will induce mortification. Softening of brain may result from plugging of one of the branches of internal carotid, or of one of the arteries in fissure of Sylvius.

Treatment. See *Thrombosis*.

EMMETROPIA.—From Ἔμμετρος, in regular measure; ὤψ, the eye. Synon. *Normal-sightedness.*—Emmetropia, or normal vision, exists when a well-defined but inverted image of an object, at an ordinarily visible distance, is formed upon the compound structure known as the retina. The local change here excited must be conveyed to the fibres of the optic nerve, communicated to the brain, and again projected outwards in an inverted direction. Through this double inversion the projected image corresponds to the object; and men say that they see the object, although only the projected retinal image stands, as it were, before their eyes (Donders).—The emmetropic eye can distinguish the presence of an object the 600th of an inch in size at a distance of six inches. Can read Snellen's types at indicated distances.

The power of vision often injured by use of single eye-glasses. Light blue spectacles — "conservative spectacles" — do harm, the retina being benefited by the stimulus of white light. It would be as wise to employ "conservative" crutches to spare the muscles.

EMPHYSEMA. — From Ἐμφυσάω, to inflate. Synon. *Pneumatosis Pulmonum; Pneumectasis.*—Two varieties:—One consisting of enlargement of air-cells, atrophy of their walls, and obliteration of their vessels (*vesicular* or *pulmonary* emphysema). The other due

to infiltration of air into interlobular areolar tissue, or into sub-pleural areolar tissues (*interlobular* emphysema). Both forms produce habitual shortness of breath; occasional paroxysms of asthma; and such distress, that sufferer is unfit for any active occupation. They often lead to disease of right cavities of heart, with venous congestion and dropsy.

1. Vesicular Emphysema.—May affect one lung or both, or a part of each—especially anterior edges and apices.

Symptoms. Dyspnœa, increased on any exertion. Feeble cough. Expectoration of frothy sputa. Dusky appearance of countenance. Weakness of voice. Stooping gait. Loss of flesh and strength. Lowered temperature of body. Constipation. Weak and slow pulse. Attacks of asthma. On percussion,—unnatural clearness and resonance. On auscultation,—very indistinct vesicular murmur. Occasionally, a moist râle, like sub-crepitant rattle of bronchitis. Heart's sounds feeble: often cardiac displacement. Diseased side of thorax unduly prominent and rounded.

Treatment. Invigorating diet, with attention to digestive organs. Rest. Warm clothing. Carbonate of ammonia, 361, 371. Ammonia and ether, 85, 364. Lobelia and ether, 88. Sumbul and hop, 369. Quinine, 379. Quinine and steel, 380. Steel and pepsine, 394. Cod liver oil, 389. Steel and cocoa-nut oil, 391. Phosphate of iron, 405. Stramonium smoking. Raspail's camphor cigarettes. Use of respirator. Warm climate.

2. Interlobular Emphysema.—Generally due to sudden rupture of air-cells by violent strain. Very rarely associated with vesicular emphysema. Can only be relieved by antispasmodics. When extensive may at once prove fatal.

EMPYEMA.—From Ἐν, within; πύον, pus. Synon. *Pyothorax; Hydrothorax Purulentus.*—The formation and accumulation of pus in the cavity of the pleura. Some physicians speak of true and false empyema: the first form being that in which pus is secreted by pleura in consequence of inflammation; the second, that in which pus finds its way into thoracic cavity from rupture of an abscess of lung. —See *Pleurisy.*

ENDOCARDITIS.—From Ἔνδον, within; καρδία, the heart; terminal *-itis.* Synon. *Internal Carditis.* — Inflammation of the transparent and glistening serous membrane which lines the interior of the heart, and which by its reduplications assists to form the valves.—Endocarditis usually associated with acute rheumatism. Endo-pericarditis more common than simple endocarditis.

Symptoms. In severe forms, a sense of oppression and uneasiness at præcordial region. Fever. Small and feeble and intermittent pulse. Patient prefers to lie on his back; is restless and anxious. Cold sweats. Oppressive dyspnœa. Jactitation. Syncope.—When morbid action is of limited extent, or of sub-acute character, symptoms milder and more obscure. During rheumatic fever, it sometimes

occurs without being recognised; though its power is manifested by the structural changes which remain after apparent recovery.—Endocarditis of left, more common than of right side of heart. That portion of membrane covering valves and lining orifices most frequently attacked. Seldom directly fatal: remote effects most to be dreaded.

Physical signs:—Palpation may detect a vibratory thrill. Doubtful if there is ever increased dulness on percussion, owing to tumefaction of heart's walls. A soft bellows-murmur detected by auscultation. If murmur be systolic, most distinct at base and along course of aorta, and accompanied with small pulse, it is significant of *aortic obstruction;* if systolic, most distinct at apex, and with irregular pulse, it is due to *mitral regurgitant disease.* A diastolic murmur, most distinct from centre of sternum upwards towards the base, with a jerking pulse, indicates *aortic regurgitation;* while a diastolic murmur, most distinct from fourth left intercostal space downwards towards apex, with an irregular small pulse, results from *mitral obstruction.* Pulmonary systolic and diastolic murmurs, infinitely rare.

Terminations:—Permanent valvular disease, with implication of heart's substance, and all their combined consequences. Systemic loss of tone; impoverishment of blood; obstruction to circulation; dropsy. Perhaps, sudden death.—See *Embolism.*

Treatment. Perfect rest of body and mind. Sulphate of magnesia, or sulphate of soda, if there be constipation, 141, 144, 150, 152. Carbonate of ammonia, 361, 362. Aromatic spirit of ammonia, 349. Bicarbonate of potash drink, 355. Linseed poultices over cardiac region. Light diet.

Remedies sometimes employed:—Tartarated antimony. Calomel. Mercurial inunction. Digitalis. Opium. Colchicum. Blood-letting. Leeches. Blisters.

ENDOMETRITIS.—From Ἔνδον, within; μήτρα, the womb; terminal *-itis.* Synon. *Uterine Leucorrhœa; Uterine Catarrh.*—Catarrhal or croupy inflammation of mucous membrane lining uterine cavity.

Symptoms. *Acute variety:*—Dry hot skin; general irritability; sallow complexion; loss of appetite. Pain about lower part of abdomen, sacrum, groins, inside of thighs. Sense of heat and fulness about pelvis: bearing-down. Frequent micturition: urine loaded with urates or uric acid. Tenesmus and diarrhœa; subsequently constipation. Hæmorrhoids. Tenderness of ovaries and uterus on pressure. Thick and tenacious discharge, after two or three days: subsequently, muco-purulent secretion tinged with blood, imparting a greenish-yellow or yellowish-red stain to body linen.

Chronic form:—Runs a tedious course. Obstinate dyspepsia; flatulence; constipation; mental depression. Wearying pains about sacrum, groins &c. Discharge of abundant glairy mucus, resembling white of egg or mucilage. Increasing debility. Hysterical or convulsive affections, severe nausea, tympanites, tenderness of breasts, and menorrhagia, if lining of fundus be involved.

Treatment. *Acute variety:*—Rest in bed. Diet of fish, milk, tea, mucilaginous drinks. Castor oil. Calomel and compound jalap powder, 159. Podophyllin, 160. Warm hip baths. Warm water vaginal injections. Mercury and belladonna pessary, 423. Linseed poultices to lower part of abdomen and vulva. Four or six leeches to lips of uterus. Avoidance of sexual intercourse.

Chronic form:—Corrosive sublimate, 27. Green iodide of mercury, 53. Red iodide of mercury, 54. Donovan's triple solution, 51. Iodide of potassium, 31. Mercury, or iodide of lead, and belladonna pessaries, 423. Pepsine, 420. Cod liver oil. Leeches to labia uteri, or scarifications, only if there be congestion and no tendency to menorrhagia. Division of os uteri with hysterotome, if there be constriction. Application of solid nitrate of silver up cervical canal, or astringent uterine pessaries (424), in endometritis limited to cervix. Injection of tincture of iodine, but only after dilatation of os uteri by sponge-tents.—Animal food, milk, raw eggs. Avoidance of malt liquors. Gentle exercise in open air.—Subsequently,—Mineral acids with bark, 376. Quinine, 379. Nitro-hydrochloric acid, 378. Steel and pepsine, 394. Phosphate of iron, 405. Mineral waters of Spa, 467. Homburg, 491. Carlsbad, 496. Marienbad, 497. Kissingen, 493.

ENDOSTEITIS.—From Ἔνδον, within; ὀστέον, a bone; terminal *-itis*.—Inflammation of medullary membrane lining central canal of long bones, as well as cells of flat and irregular bones.—See *Osteomyelitis*.

ENTERITIS.—From Ἔντερον, an intestine; terminal *-itis*. Synon. *Intestinorum Inflammatio; Ileocolitis; Enterophlogosis.*—Inflammation of the small intestines varies much in severity. Results sometimes very slight. There are no signs by which the morbid action can be positively diagnosed as existing only in duodenum, or in jejunum, or in ileum. All the coats of the bowel may be involved, or only the mucous lining.

Symptoms. Rigors; hot skin; thirst; hard and frequent pulse. Abdominal pain, especially around umbilicus; increased by pressure. Nausea and vomiting. Position on the back assumed, so as to relax abdominal parietes. Great restlessness; high fever; prostration; anxiety of countenance; obstinate constipation; delirium. Wiry and almost imperceptible pulse. Vomited matters highly offensive: sometimes stercoraceous.

Treatment. Perfect quiet in bed. Opium and belladonna, 344. Enemata of warm water, to empty lower part of intestines. Ice or cold water. Aconite. Calomel. Demulcent drinks. Broth; beef tea; farinaceous substances; milk. Hot linseed poultices. Fomentations. Application of belladonna and opium, 297. Turpentine stupes. Sinapisms. Blisters.—*Where there is a disposition to collapse:*—Ammonia and ether, 364. Brandy and egg mixture, with opium, 318. Brandy and ether, 367.—*During convalescence:*—Ammonia and bark, 371. Cod liver oil. Steel and cocoa-nut oil,

391. Steel and glycerine, 392. Phosphate of iron, 405. Simple animal food; milk; raw eggs.

ENTOZOA.—From *Ἐντὸς*, within; *ζῶον*, an animal.—The parasitic animals which infest the human body are very numerous. Helminthologists are well acquainted with upwards of thirty perfectly distinct forms. The following are those of importance:—

(1) Fasciola Hepatica.—Synon. *Distoma hepaticum; Liver-fluke.*—Of the order Trematoda, or flukes. Common in all varieties of grazing cattle, producing the Rot. It has been found in the human gall-bladder &c. Usually rather less than an inch in length, and rather more than half an inch in breadth: body flat, covered with minute spines, of an oval form, and capable of contraction like that of a leech: has an oral and a ventral sucker: androgynous, the orifices of the male and female organs being placed side by side near the ventral sucker: oviparous. Bile forms its nourishment.

(2) Distoma Lanceolatum.—Synon. *Fasciola lanceolata.*—This helminth, belonging to the order Trematoda, is smaller than the preceding, and less common. Body flat, smooth, and of a lanceolate form: androgynous: circular oral and ventral suckers. Most frequently found in liver of ox: only three cases recorded of its occurrence in human subject (Cobbold).

(3) Distoma Ophthalmobium.—Synon. *Distoma oculi-humani.*—Of the order Trematoda. Four specimens have been found in the eye of an infant with congenital cataract (Gescheidt). Body very minute, and of a lanceolate oval form: two circular suckers.

(4) Distoma Crassum.—Synon. *Distoma Buskii.*—Of the order Trematoda. Body varies in length from an inch and a half to three inches: about half an inch in breadth. In 1843, fourteen of these flukes were found in duodenum of a Lascar who died in the Dreadnought Hospital ship (Busk).

(5) Distoma Heterophyes.—A very small trematode helminth, scarcely one line in length. Found on two occasions in small intestines of boys (Bilharz).

(6) Distoma Hæmatobium.—Synon. *Gynæcophorus hæmatobius; Thecosoma hæmatobium; Bilharzia hæmatobia.*—A cylindrical trematode worm, nearly half an inch in length. Males and females distinct: former the largest, and having on under surface of abdomen a longitudinal groove (gynæcophoric canal), in which the slender female is lodged during copulation.—See *Hæmatozoa.*

(7) Tetrastoma Renale.—Has an oval flattened body, about five lines long, and provided with four suckers. Said to be found in the tubuli uriniferi. Very little known about it.

(8) Hexathyridium Pinguicola.—Synon. *Linguatula pinguicola; Polystoma pinguicola.*—A flat trematode, about eight lines in length. Been found in a small tumour of ovary (Treutler).

(9) Hexathyridium Venarum.—Synon. *Polystoma venarum; Linguatula venarum.*—See *Hæmatozoa.*

(10) Tænia Solium.—Synon. *Tænia communis* &c.—A large cestode helminth, which in its sexually-mature or strobile condition

may measure from twenty to thirty feet in length: breadth, at widest part, nearly half an inch. Head (scolex) small and flattened, provided with a projecting papilla, armed with a double circle of hooks, and with four suckers: the neck long and narrow, continued into imperfect segments (sexually immature), which gradually merge into distinct segments (proglottides or sexually-mature joints). The generative apparatus consists of a ramified canal or ovarium containing the ova, and of a minute spermatic duct, both occupying the centre of each proglottis. Impregnation occurs by contact of one proglottis with another. The cysticercus cellulosæ, or pork measle, is the larva or scolex of this tapeworm.—See *Intestinal Worms.*

(11) Tænia Mediocanellata.—A cestode worm, attaining a greater length, and having larger segments than the preceding. Head furnished with large sucking-discs, but destitute of a rostellum and hook-apparatus. The "measles" or cysticerci which produce this helminth are found in the muscles of cattle. This hookless tapeworm is as common in this country as the Tænia solium, for which it is often mistaken (Cobbold).—See *Intestinal Worms.*

(12) Tænia Marginata.—Synon. *Tænia ex cysticerco tenuicolli; Tænia tenuicollis; Tænia globosa.*—Infests man only in the immature or cysticercal condition, the full-grown tapeworm (strobila) being found in dog and wolf (Cobbold). The larva (Cysticercus tenuicollis) only been found once or twice in human body.

(13) Tænia Echinococcus.—A very small cestode helminth, infesting only the dog and wolf. Often met with in its larval condition in man, forming the well-known hydatids (echinococci, or acephalocysts). Hydatids are found in the following organs, enumerated according to their frequency:—Liver; subperitoneal areolar tissue; omentum; female breast; muscles of heart; brain; spleen; kidneys; lungs; bones, especially shaft of tibia.—See *Hepatic Tumours.*

(14) Bothriocephalus Latus.—The largest cestode helminth ever met with in human subject; sometimes attaining a length of more than twenty-five feet, and a breadth of nearly an inch (Cobbold). This broad tapeworm is almost peculiar to the inhabitants of Switzerland, Russia, and Poland. Each joint or segment possesses its own ovary and male organs.

(15) Ascaris Lumbricoides.—Synon. *Lumbricus teres hominis.*—A nematode helminth, in size and appearance like the common earth worm. Males about six inches long: females, double this length.—See *Intestinal Worms.*

(16) Ascaris Mystax.—A nematode worm, especially characterised by the presence of alaform appendages, one being placed on each side of the head. The male acquires a length of two inches and a half: female, twice as long. Very common in the cat. In a few instances it has been found in human intestine (Cobbold).

(17) Tricocephalus Dispar.—Synon. *Trichuris; Ascaris trichiura.*—The long thread-worm is a small nematode helminth, usually found in cæcum and large intestines. Male measuring about eighteen lines in length, female reaching two inches.—See *Intestinal Worms.*

(18) Trichina Spiralis.—See *Trichiniasis.*

(19) Strongylus Bronchialis. — Synon. *Filaria bronchialis; Filaria lymphatica.* — A nematode helminth; the male measuring about seven lines, the female about an inch. Has been found in the human bronchial glands.

(20) Eustrongylus Gigas.—Synon. *Strongylus gigas; Strongylus renalis.*—A nematode helminth; the male attaining a length of ten to twelve inches, and the female reaching to three feet. Not very uncommon in the kidneys and ovarian passages of animals, especially weasels. Rare in man. Gives rise to symptoms like those of renal abscess or renal calculi.

(21) Sclerostoma Duodenale.—A small nematode worm: the males measure one-third of an inch in length, the females being rather longer. Very common in Egypt, its presence in the small intestines of the natives giving rise to severe anæmia.

(22) Oxyuris Vermicularis. — Synon. *Ascaris vermicularis.*— This nematode helminth is the smallest of the intestinal worms. Male about three lines in length: female slightly longer.—See *Intestinal Worms.*

(23) Dracunculus Medinensis. — Synon. *Filaria Medinensis; Guinea-worm.*—See *Dracontiasis.*

(24) Pentastoma Tænioides. — One of the family of Acaridæ. No structural connexion with true helminths. Adult body, lancet-shaped; flattened at ventral surface; marked transversely by some ninety rings; four feet or limbs; head, truncated; general surface smooth, but in larval condition (*Pentastoma denticulatum*) furnished with many rows of sharp spines. Length of female three to four inches; of male, eight to ten lines. Oviparous, with a subsequent metamorphosis. In sexually-mature state, infests nostrils and frontal sinuses of dog and wolf; in pupa and larva state found in human abdominal and thoracic cavities, though it has not been met with in this country. Does not give rise to any functional derangements (Cobbold).

(25) Pentastoma Constrictum.—About half an inch in length, and one line in breadth. Differs from larva of Pentastoma tænioides in not having spines. The cephalo-thorax has four foot claws: the elongated abdomen is marked with twenty-three rings. Has been found in the livers of negroes at Cairo (Cobbold).

(26) Pseudelminths. — The following so-called worms are not human parasites. They have probably been introduced into the excrements or into the viscera for the purpose of deception. They are, — *Dactylius aculeatus; Spiroptera hominis; Diplosoma crenatum; Gordius aquaticus,* or common hairworm of ditches, about a foot long, extremely slender, and which coils itself into knots (Cobbold).

See *Entozoa* in the Tabular Synopsis.

ENTROPION.—From Ἐν, in; τρέπω, to turn. Synon. *Inversio Palpebrarum; Blepharelosis.*—An inversion of the margins of the eyelids. May result from a cicatrix in conjunctiva, neglected puru-

lent ophthalmia &c. Removal of the eyelashes will give at least temporary relief. Collodion to outside of lid: alum coagulum, 289.

ENURESIS. — From *Ἐνουρέω*, to urine in bed. Synon. *Hyperuresis; Incontinence of Urine.*—May be associated with tendency to renal disease; disposition to gravel; excess of uric acid in urine; stone in bladder; loss of tone, or tumours, of walls of bladder; irritation of thread worms in rectum; hæmorrhoids and prolapsus ani; long and contracted foreskin; stricture of urethra; enlarged prostate; vascular tumours of female urethra; ovarian or uterine diseases and displacements; paralysis from spinal disease; nervous debility; hysteria; dyspepsia &c.

Enuresis very common in young children. Its occurrence favoured by free use of fluids during after part of day; by exposure to cold in night; by lying on back,—a posture unfavourable to retention of urine, especially when natural sensibility of mucous membrane of neck of bladder is increased.

Can usually be cured by making child almost abstain from fluids for three or four hours before going to bed: waking him to empty bladder twice or thrice during night: tying a cotton reel over spinal column, so that when he turns round upon his back he may be awoke: giving strength and tone to system, by administration of the tincture of perchloride of iron, phosphate of iron, cantharides and steel, benzoic acid, phosphate of zinc and belladonna, cod liver oil &c. Circumcision will be required, if there be a long prepuce with a very small orifice. In inveterate cases, application of succession of small blisters over sacrum. Where bladder is very irritable, belladonna plaster over loins and sacrum: or friction with diluted belladonna liniment. Where walls of bladder are weak, nux vomica; ergot of rye: galvanism to lower part of abdomen and spine.

EPILEPSY. — From *Ἐπιλαμβάνω*, to attack unexpectedly. Synon. *Morbus Comitialis; Falling Sickness.*—A disease presenting these prominent symptoms:—Sudden loss of consciousness and sensibility, with tonic convulsions lasting a few seconds, and followed by clonic spasms of voluntary muscles. Cessation of fit succeeded by exhaustion and coma. Attack recurs at intervals. — Hereditary taint, and marriages of consanguinity, are predisposing causes.

Warnings. Premonitory symptoms of an approaching seizure often not experienced. They differ in duration and character. Sometimes too short to allow sufferer to dismount from horseback, or remove away from fire, or lie down: sometimes many minutes or hours between their occurrence and fit. Spectral illusions, headache, giddiness (epileptic vertigo), confusion of thought, sense of fear, and that peculiar sensation — the *aura epileptica* — constitute most frequent premonitory symptoms. Epileptic aura differently compared to a stream of cold water, a current of cold or warm air, sense of tingling, creeping of insects; the feeling beginning at extremity of a limb, and gradually ascending along skin towards head. As soon as the aura stops, the paroxysm occurs.

Symptoms. Cadaverous pallor of countenance, with utterance of a shriek or scream; immediately after which patient falls to the ground, and frequently on his face, senseless and violently convulsed. Severe burns, fractures, dislocations &c. may be produced. Convulsive movements continue violent: usually more marked on one side of body than on the other. Gnashing of teeth. Foaming at mouth; protrusion of tongue, which is often severely bitten. Eyes partly open and suffused: eyeballs rolling, and pupils insensible to light. Skin cold and clammy. Perhaps involuntary micturition and defæcation: vomiting. Breathing laborious, seems about to be suspended; when the limbs are stretched out, a deep sigh is drawn, and attack goes off. Patient left insensible and as in a sound sleep, with stertorous breathing; from which he recovers with feeling of stupor and exhaustion and headache, but without any knowledge of what he has gone through. Some hours subsequently, small ecchymoses, like flea-bites, often to be detected about forehead and throat and chest.

Average duration of fit from two to three minutes. Occasionally said to last some hours: appearance of this due to rapid succession of seizures,—the *status epilepticus*. Fit may be very slight (*petit mal*), or very severe (*grand* or *haut mal* of the French). Former often only consists of giddiness, loss of consciousness, convulsions, and stupor, and is all over in less than a minute. Seizures recur at very variable intervals: often happen in the night, and for a time without being suspected by patient or friends. Repetition of attacks impairs memory: may produce cerebral hæmorrhage, temporary or permanent paralysis, or dementia and idiocy.

In *feigned* epilepsy, the impostor does not fall violently, but throws himself down deliberately in such a way as to avoid injury. Eyes are closed; pupils contract to stimulus of light; tongue is not bitten; face is red instead of deadly pale, while skin is hot from necessary exertion; neither urine nor fæces are voided. Proposing to apply actual cautery, or to shave the head, often effects a speedy cure. Blowing snuff up the nostril changes the fit into one of sneezing.

Treatment. *During fit:*—Patient to be laid on a large bed, or on floor. Air to be freely admitted around him. Head to be raised, and all tight parts of dress loosened. A piece of cork or soft wood to be introduced between teeth for protection of tongue. Cold affusion to head sometimes useful where countenance is turgid. Use of snuff, so as to induce sneezing.—Where fit is preceded by epileptic aura, application of ligature just above region from which sensation starts, may prevent attack.

During interval:—Improvement of general health necessary. Bromide of potassium, continued for a long time, 42. Belladonna, or Atropia, 326. Hypodermic injection of atropine, 314. Quinine, 379, 386. Salts of iron, 380, 390, 394, 405. Salts of zinc, 410, 413, 414. Hypophosphite of soda or lime, 419. Cod liver oil. Henbane, hop, or Indian hemp, if there be sleeplessness. Nutritious diet: milk, raw eggs, animal food, wine or beer. Cold shower bath. Tepid salt water sponge bath. Chapman's ice bags to spine. Removal of stumps or decayed teeth: or of any other source of irritation, as worms &c.

Remedies sometimes recommended:—A long-continued course of corrosive sublimate. Iodide of potassium. Turpentine. Camphor. Valerian. Assafœtida. Opium. Digitalis. Chloroform. Naphtha. Cajuput oil. Nitrate of silver. Ammonio-sulphate of copper. Sulphate of copper. Arsenic. Juice of cotyledon umbilicus. Expressed juice of galium album. Galvanism. Stramonium. Sumbul. Oxalate of cerium. Strychnia in small tonic doses. Inhalation of oxygen. Tracheotomy. Caustics to larynx. Moxa, or actual cautery, to nape of neck, or to part whence aura starts. Setons or issues high up in neck. Repeated blisters over upper cervical vertebræ. Excision of clitoris. Extirpation of testicles.

EPIPHORA.—From Ἐπιφέρο, to convey to. Synon. *Lacrymatio; Weeping.*—A superabundant secretion of tears, so that they run over the cheek. Common in strumous children. May be due to foreign bodies. To be distinguished from *stillicidium lachrymarum* owing to closure of puncta lachrymalia, or to obstruction of nasal duct.

EPIPHYTES.—From Ἐπὶ, upon; φυτὸν, a plant. Synon. *Phytoparasites.*—Microscopic vegetable growths, belonging to the class *Fungi Cryptogamia.* They are found on the skin and mucous membranes, in the stomach &c.

The chief vegetable parasites are:—(1) *Microsporon furfur*, found in Tinea versicolor or chloasma. (2) *Microsporon mentagrophytes*, in Tinea sycosis. (3) *Tricophyton tonsurans*, in ringworm. (4) *Achorion Schönleinii*, in Tinea favosa or honeycomb ringworm. (5) *Microsporon Audouini*, in Tinea decalvans. (6) *Tricophyton sporuloides*, in Plica Polonica. (7) *Oidium albicans*, in aphthæ. (8) *Sarcina ventriculi*, in some stomach diseases. (9) *Cryptococcus Cerevisiæ* or *yeast plant*, in the stomach. And (10) *Mycetoma* or *Chionyphe Carteri*, in Fungus foot of India.—See *Tinea; Fungus Foot of India.*

EPISTAXIS.—From Ἐπισταζω, to drop upon. Synon. *Hæmorrhagia Narium; Rhinorrhagia; Bleeding at the Nose.*—Bleeding from the nose is very common in early life, without doing any harm. But it frequently gives rise to anxiety when it occurs in advanced life. If there be tendency to apoplexy, or if patient be afflicted with heart-disease, the loss will perhaps prove beneficial. This is not the case when the bleeding sets in during progress of disorders which injure quality of blood; as in renal and hepatic diseases, fever, scurvy, purpura &c. Exhausting epistaxis may be immediate cause of death in leucocythemia, when approaching a fatal termination.

Treatment. Patient to be seated upright. Collars and neckhandkerchiefs to be removed. Holding one or both arms above the head. Cold to neck and back, or over nose and forehead. External compression of nostril with finger. Swabbing nostril with perchloride of iron. Snuffing of alum, powdered matico leaf, tannin, powdered gum. Injections of alum, or iron alum, or tincture of perchloride of iron in

water. Plugging nostril with cotton wool saturated with an astringent. Styptic rods of tannin, 424. Plugging posterior nares.

Calomel. Corrosive sublimate, 27. Gallic acid, 103, 104. Ammonio-sulphate of iron, 116. Ergot of rye. Mineral acids with bark, 376. Tincture of perchloride of iron, 101. Turpentine, 102. Digitalis. Mild laxatives, 142, 143. Nitric acid and taraxacum, 147. Nourishing diet: potatoes: watercresses: orange or lemon juice.

EPITHELIAL CANCER.—From Ἐπί, upon; and θηλή, the nipple. Properly, therefore, the epidermis of the nipple; but now used generally for the layers of cells forming the cuticle. Synon. *Epithelioma; Cancroid of the Skin.*—By some pathologists regarded not as a form of cancer, but as a disease sui generis, consisting of an infiltration of cells of scaly epithelium. Hence its synonyms. Resembles cancer inasmuch as it returns after excision, is prone to incurable ulceration, affects the lymphatics seated near it, and destroys the patient. Peculiar in being little liable to multiplication in internal organs, and in being, apparently produced by local causes. — See *Cancer.*

EPIZOA.—From Ἐπί, upon; and ζῶον, an animal. Synon. *Ecto-parasites.*—Animal parasites which live upon, or in the structure of, the skin.

The epizoa living on the skin are:—(1) The *Louse* or *Pediculus.* (2) *Common Flea,* or *Pulex irritans.* (3) *Chigoe* or *Jigger,* found in Guiana and Brazil. (4) *Ticks* or *Ixodes,* which particularly attach themselves to oxen, sheep, dogs, wolves, and occasionally to the human body. (5) *Argades,* which are allied to the Ticks, and are met with in parts of Persia. (6) Common *Bed-Bug* or *Acanthia lectularia.* And (7) the *Harvest-Bug,* or *Leptus autumnalis.*—See *Phthiriasis,* and *F.* 429.

The epizoa found in the skin are:—(1) The *Itch insect,* or *Acarus scabiei,* or *Sarcoptes hominis.*—See *Scabies.* And (2) *Demodex folliculorum* (Owen), or *Acarus folliculorum* (Simon), or *Pimple mite,* which is chiefly found in the ducts of the sebaceous glands of the alæ of the nose.

EQUINIA.—From *Equus,* a horse. A severe inflammatory disease, due to inoculation with morbid fluids generated in the horse, ass, and mule.—See *Glanders.*

ERUPTIVE FEVERS.—Continued fevers, with an eruption superadded.—See *Small-pox; Cow-pox; Chicken-pox; Measles; Scarlet-fever; Rubeola; Plague;* and *Erysipelas.*

The principal diseases of this class have these common characters:—A variable amount of time elapses between reception of poison and setting in of symptoms, called the period of incubation; they are accompanied by fever, which runs a defined course; are attended by an eruption, which goes through a regular series of changes; for the most part affect every individual once, and once only, during life;

and they arise from specific contagion. Of all eruptive fevers, scarlatina is probably that which most frequently occurs a second time.

The following table shows the period of incubation, together with date of eruption and time of its disappearance, in the three chief eruptive fevers:—

Disease.	Period of Incubation.	Eruption appears.	Eruption fades.
Measles	10 to 14 days	On 4th day of fever	On 7th day of fever.
Scarlet fever.	4 to 6 days	On 2nd day of fever	On 5th day of fever.
Small-pox ...	12 days	On 2nd day of fever	Scabs form on 9th or 10th day of fever, and fall off about 14th.

ERYSIPELAS.—From Ἐρύω, to draw; πέλας, near,—expressive of the tendency of the disease to spread. According to German lexicographers, from Ἐρυθρὸς, red; πελος, livid,—livid redness. Synon. *Saint Anthony's Fire; the Rose.*—A diffused, spreading, inflammatory affection of the skin, and very commonly of the subcutaneous areolar tissue. There are the general phenomena of fever; while the affected part becomes of a deep red colour, hot, painful, and swollen.—It is a miasmatic disorder, due to absorption of a specific poison. The miasm most readily generated by the assembling together, in one ward, of patients with unhealthy discharges or secretions. Epidemic, and contagious.

No portion of the surface exempt from attacks. Integuments of face and head most commonly the seats of *idiopathic* erysipelas,—that which arises from internal causes; while *traumatic* erysipelas—that following wounds, commences at seat of injury. In *simple* erysipelas, inflammation superficial; in *phlegmonous* form, subcutaneous areolar tissue involved.

Symptoms. A period of incubation, varying from three to seven days. Chilliness, rigors, sore throat, fever, and constitutional disturbance. Urine sometimes albuminous: chlorides diminished. Cerebral disturbance, delirium. Nausea, vomiting, diarrhœa. Swelling of the part: if of face, all traces of natural features quite lost.

Death may occur from extension of inflammation to brain or its membranes. Chink of glottis sometimes becomes closed from serous effusion. Failure of vital powers. Erysipelas occurring in cases of diabetes, or especially of renal disease with albuminuria, are almost always fatal. Mortality in England averages about 2000 annually. Poison of erysipelas will give rise to puerperal fever in lying-in women.

Treatment. Confinement to bed in a well-ventilated room. Light diet. Cooling drinks.—Castor oil. Aloes, senna, and magnesia, 150. Rhubarb and blue pill, 171. Compound rhubarb powder, 165. Carbonate of ammonia, 361, 371. Tincture of perchloride of iron, 392.

Chlorate of potash, 61. Quinine. Turpentine. Colchicum. Port wine. Ale or stout. Brandy. Brandy and egg mixture, 17.

Locally:—Fomentations. Poultices. Inunction with lard. Dusting with flour: finely-ground rice powder. Collodion. Boundary lines to be drawn on sound skin with nitrate of silver or tincture of iodine. Incisions to evacuate pus, or to relieve great tension.

Infantile erysipelas:—Vigorous wet-nurse. Good milk. Beef tea. White wine whey. Wine and water. Bark.

ERYTHEMA.—From *Ἐρυθαίνω*, to redden or cause blushing. Synon. *Inflammatory Blush; Efflorescence Cutanée.*—A non-contagious affection of the skin. One of the *Exanthemata.* Characterised by slight superficial red patches, irregularly circumscribed, of variable form and extent. Most frequently seen on face, chest, and extremities.

Varieties. *Erythema fugax*, of a fleeting nature, and generally due to some derangement of alimentary canal. *Erythema intertrigo*, sometimes produced by friction between folds of skin, where secretions are not removed by washing. *Erythema pernio*, the technical name for that peculiar inflammation of skin constituting an unbroken chilblain. *Erythema circinatum*, in which the round red patches are slightly raised, and ring-shaped. Not of uncommon occurrence in acute rheumatism. *Erythema lœve*, which is developed on lower extremities when they become anasarcous. *Erythema nodosum*, in which the eruption is confined to fore part of leg, taking the form of one or more oval raised patches, resembling nodes.

Treatment. Effervescing citrate of magnesia. Compound rhubarb powder. Pill of aloes and myrrh. Colchicum. Quinine. Compound tincture of bark. Mineral acids. Steel wine. Ammonio-citrate of iron. Pill of carbonate of iron. Subacetate of lead lotions. Glycerine lotions. Veratria ointment, if there be pain. Warm water or vapour baths. Warm fomentations. Elevation of limb. Puncture of anasarcous limb. Light diet. Cooling drinks,—lemonade.

EUSTACHIAN TUBE DISEASES.—This tube (first described by *Eustachius*), by which the tympanum communicates with the pharynx, is about two inches long. Composed partly of bone, partly of fibro-cartilaginous tissue. It affords an entrance for air into tympanum and an exit for mucus.

1. Obstruction of Tube.—Permanent obstruction produces exhaustion of air in tympanic cavity: consequently a pressure inwards of membrana tympani, a forcing together of chain of bones, pressure on contents of labyrinth, and deafness. Conditions giving rise to obstruction are:—Thickening of mucous membrane of faucial orifice, such as often coexists with chronic enlargement of tonsils; a collection of viscid mucus, or stricture of middle part of tube; and thickening of mucous membrane, stricture of bony walls, or deposit of fibrin at tympanic opening.

Symptoms. The entrance of air into tympanum, during act of deglutition, can be distinctly heard by the Otoscope,—an elastic tube,

eighteen inches long, having its ends tipped with ivory. One end being inserted into ear of patient, and the other into that of surgeon, the patient is directed to swallow saliva with mouth and nose closed. If tube be pervious, at the moment the patient has a sensation of fulness in ear, practitioner will detect a faint crackling sound, produced by slight movement of membrana tympani. Where mucous membrane of the tympanum is thickened, a gentle flapping sound will be heard instead of faint crackling. If the otoscope fail to reveal any sound during deglutition, if no sound be heard when a forcible attempt at expiration is made with mouth and nose tightly closed, and if no other cause can be found for dulness of hearing, then it may be presumed that the tube is obstructed (Toynbee).

Treatment. Attention to general health. Nourishing diet; warm clothing; exercise in open air; sea bathing. Cod liver oil, 389. Iodide of iron, 32. Iodide of potassium and bark, 31. Corrosive sublimate in bark, 27. If tonsils be enlarged, or faucial mucous membrane swollen, application of solid nitrate of silver: swabbing with tincture of iodine. Excision of tonsils. Introduction of Eustachian catheter. Puncture of membrana tympani in irremediable obstruction.

2. An Open Condition of Tube.—The normal condition of this canal is that of closure by apposition of its walls. It acts like a valve, which is opened by muscles of palate and pharynx during deglutition. When permanently open, — complaint made of buzzing and other noises in ear. Uneasiness about throat. Occurs during attacks of catarrh: in irritable conditions of throat. Cure results as cause subsides.

EXOPHTHALMIC GOITRE.—From Ἐξ, out; ὀφθαλμὸς, the eye. Protrusion of the eyeball (proptosis oculi), accompanied with goitre. —See *Bronchocele; Graves' Disease.*

EXOPHTHALMOS.—From Ἐξ, out; ὀφθαλμὸς, the eye. Synon. *Procidentia Bulbi Oculi; Ophthalmocele; Proptosis Oculi; Goggle-eyed.*—A protrusion of the eyeball, so that the lids cannot cover it. Met with in some forms of anæmia.—See *Graves' Disease; Anæmia.*

EXPECTATION OF LIFE.—By this term is meant,—the mean number of years which, at any given age, the members of a community, taken one with another, may expect to live. An easy rule has been established for determining this value:—The expectation of life is equal to two-thirds of the difference between the age of the individual and eighty. Thus, a man is 20 years old; 60 is the difference between this age and 80; two-thirds of 60 are 40, and this is the sum of his Expectation. By the same rule, a man of 60 will have a lien on life for nearly 14 years: a child of 5 for 50 years (Willich). The results thus obtained correspond very closely with those to be deduced from Dr. Farr's English Life Table, which was constructed with great care from an immense mass of records.

FALLOPIAN TUBE DROPSY.—An uncommon affection. Fim briated extremity of tube together with uterine orifice, get completely obliterated in consequence of chronic inflammation; the portion of canal between the openings becoming the seat of an accumulation of pus or serous fluid. As many as twenty-three pints of fluid have been found, under these circumstances. Only one method of giving relief,—puncture of cyst with a minute trocar and canula through roof of vagina.

FARCINOMA OR FARCY.—From *Farcio*, to stuff or cram.—A severe contagious disease; accompanied with a pustular eruption or small tumours (Farcy-buds) which soon suppurate, and malignant fever. Arises from inoculation with morbid matter generated in the horse, ass, or mule.—See *Glanders*.

FATTY DEGENERATION.—The designation of *fatty degeneration*, or *fatty metamorphosis*, is given to a certain class of cases which during life are marked by anæmia with great prostration; and which, after death, are found to be distinguished by the more or less perfect transformation into fat of various important textures, but especially of muscular fibres of the heart.

There is no connexion between the tendency to form fat around organs, or the production of obesity, and the change of tissues into fat. In former case there is a condition which may prove preservative, if confined within due limits. In latter, is to be recognised a process of decay and death, the result of some defect in nutritive functions.

Amongst the causes of this retrograde metamorphosis are old age, intemperance, inactivity, and cessation of function. Heart, lungs, brain, liver, kidneys, uterus, and arteries may suffer from it. Atheroma of arterial walls is a form of fatty degeneration; and arcus senilis is caused by same change occurring in cornea. When important organs are involved, it may lead to gradual, or sudden death:—in latter case, owing to rupture of organs.—See *Cardiac Atrophy; Fatty Degeneration of Kidney; Hepatic Degeneration.*

FEBRICULA.—Dim. *Febris*, a fever. Synon. *Ephemeral Fever.* —A mild form of fever.—See *Simple Continued Fever.*

FEVERS.—From *Ferveo*, to burn. Synon. *Febris; Pyrexia.*—Fever may be defined thus:—After a preliminary stage of languor, weakness, defective appetite, and some degree of chilliness or shivering, there is preternatural heat of body, increased waste of tissue, acceleration of pulse, great muscular debility, and disturbance of most of the functions. This morbid state accompanies many diseases as one of their phenomena—*symptomatic* fever; but under certain circumstances we meet with *idiopathic* fevers, which are probably independent of any local lesion.

Much has been written on the classification of fevers. In order to be as clear as possible, the different varieties may be arranged on the following plan:—

I. Continued Fever.
   1. *Simple Fever*, or *Febricula*.
   2. *Typhus Fever*.
   3. *Typhoid, Enteric*, or *Pythogenic Fever*.
   4. *Relapsing*, or *Famine Fever*.

II. Intermittent Fever, or Ague.

III. Remittent Fever.
   1. *Simple Remittent Fever*.
   2. *Yellow Fever*.

IV. Eruptive Fevers.
   1. *Small-pox*, or *Variola*.
   2. *Cow-pox*, or *Vaccinia*.
   3. *Chicken-pox*, or *Varicella*.
   4. *Measles*, or *Morbilli*.
   5. *Scarlet Fever*, or *Scarlatina*.
   6. *Erysipelas*.
   7. *Plague*.

For further information concerning any particular fever, reference must be made to the disease as it is arranged in alphabetical order.

FISTULA IN ANO.—From *Fistula*, a pipe or reed: *Anus*, the fundament.—A fistulous passage by side of rectum, the result of abscess.—Two forms of anal fistulæ:—(1) *Complete*, in which a probe can be introduced from external orifice upwards into the bowel. (2) *Blind external fistula*, where mucous coat of rectum is not perforated.

Symptoms. External aperture, in either kind, often small and difficult to find: generally, near the anus, but perhaps one or two inches distant; may be concealed in a furrow, or will be found in centre of a button-like eminence. Complete fistula most annoying: flatus, intestinal mucus, and fluid fæces pass along its track, causing irritation and painful spasmodic contractions of sphincter.—Fistula often coexists with phthisis: probably due to tubercular inflammation of portion of rectum, followed by ulceration and perforation.

Treatment. Exceptional cases may be cured by attention to general health; frequent bathing of part with tepid or cold water; and daily injection along sinus of iodine lotion, or sulphate of zinc lotion &c., 264, 269. Generally it is necessary to divide the tissues which intervene between the external and internal opening, including fibres of sphincter ani; first clearing out the bowels with aperients. It has been recommended to effect division by a ligature, to be tightened daily until parts are cut through; but it is much better to use the knife, pushing it through the mucous membrane of the bowel if there be no internal opening. Operation not forbidden by presence of tubercles in lungs, unless the deposit be abundant or case otherwise far advanced.

FLAT FOOT.—Synon. *Spurious Valgus; Splay Foot.*—A sinking of the tarsal arch, from relaxation of the supporting ligaments. Walking is rendered awkward, slow, and somewhat painful. In con-

firmed cases, lameness and deformity. Occasionally associated with talipes valgus (see *Club foot*). May arise from constitutional debility with too much standing. Often to be remedied, in slight cases, by friction, bandaging, and improvement of general health. The sole of boot ought to be considerably thicker on inner than outer side. An apparatus to support ankle and invert foot.

FLATULENCE.—From *Flo*, to blow up. Synon. *Tympanites; Meteorism; Drum Belly; Wind Dropsy.*—An accumulation of gas in the intestines occurs as an idiopathic disorder, or it may be symptomatic of some other affection. The gas is generally derived from the decomposition of imperfectly digested food; or it may probably be a secretion from the gastric or intestinal mucous membrane; or it will be merely air that has been swallowed. In the eructation or belching due to dyspepsia, the gas has the offensive odour of sulphuretted hydrogen.

(1) *Idiopathic form:*—The flatus usually most abundant a few hours after food: little or no derangement of general health. Nervous and hysterical women especially liable to it. Often produced by green vegetables, pea soup, tea, or any food which quickly undergoes fermentation.—*To be cured by:*—Avoidance of vegetables, soup, beer, tea. Creasote, 41. Vegetable charcoal, 98. Mineral acids with nux vomica, 376. Quinine and nux vomica, 387. Strychnia and steel, 408. Steel and pepsine, 394. Pepsine, 420. In tympanites from intestinal atony and weakness of abdominal muscles, electricity very useful.—*To give immediate relief when distress from flatulence is urgent:*—Carbonate of magnesia, opium, and ether, 62. Ether and tincture of castor, 85. Ammonia and chloroform, 86. Dill water. Caraway water. Assafœtida. Cinnamon. Spirit of nitrous ether. Cajuput oil. Spirit of nutmeg. Spirit of juniper. Compound tincture of cardamoms. Ammoniated tincture of valerian. Tincture of ginger. Hot brandy and water with spice. Peppermint lozenges. Castor oil and rue enema, 189. Castor oil and turpentine enema, 190. Turpentine stupes. Sinapisms. Linseed poultices.

(2) *Symptomatic flatulence:*—An accompaniment of indigestion; inflammatory disorders of stomach or bowels; organic diseases of liver; peritonitis; typhoid fever; uterine or ovarian irritation; gout &c.—*Remedies:*—Of a variable nature, according to the cause. Enemata of turpentine and rue, 189, 190. If quantity of air be excessive, its escape may be aided by passage of stomach-pump tube for several inches up rectum.

FOREIGN BODIES IN AIR-PASSAGES.—Foreign matters may pass into larynx, trachea, or bronchi of children,—very rarely of adults. They may enter air-passages from *within* the body:—Worms have passed upwards from stomach, by œsophagus, into larynx. Tubercular deposit, or pus, now and then makes a way by the neck. Retropharyngeal abscess sometimes bursts into larynx or trachea. In attempting to repress vomiting, matters from the stomach have entered the larynx. Portions of necrosed bone, occasionally work a

passage into bronchi or trachea.—Those bodies which are accidentally introduced from *without* are often remarkable for their size, considering the smallness of the chink of glottis. The most common are portions of toys, seeds or beans, fruit stones, buttons, pins, coins, beads, marbles, pebbles, nails, fish bones, masses of meat, sugar-plums &c. Animal and vegetable substances imbibe moisture and swell: sometimes they disintegrate and are expelled piecemeal.

Symptoms. The entrance of a foreign solid body from without usually occurs during a sudden and strong inspiration: it at once causes violent spasmodic cough, dyspnœa, a sense of impending suffocation, perhaps immediate death. In a few minutes, symptoms lessen in severity: cough and dyspnœa return at intervals. If the body remain in *larynx*, there will be harassing and suffocative cough: loss of voice, or inability to speak above a whisper: probably pain in swallowing: tenderness: noisy hissing respiration, with more or less dyspnœa. If it descend into *trachea* it is seldom stationary: can sometimes be felt by application of hand externally to rise and fall: the change in position gives rise to severe spasmodic attacks of dyspnœa: sometimes a flapping or valve-like sound, owing to foreign body being forced against rima glottidis in expiration. The substance often passes on into one of the *bronchial tubes*,—most frequently the right, being directed to this by the bronchial septum. Auscultation and percussion will then show that air does not enter the obstructed lung at all, or only incompletely: diminution or loss of resonance and of respiratory murmur. The fear of bronchitis and pneumonia to be remembered.

When fluids enter the larynx they induce a sense of choking, with convulsive and suffocative cough, which usually suffices to expel them: if very abundant they may cause sudden death.

Treatment. If the body be at entrance of larynx, or between the vocal cords, it may perhaps be seen by laryngoscope and seized with polypus forceps. This failing, child should be placed with head downwards, and slapped smartly and quickly on the back. Emetics and sternutatories can be tried: they are generally useless.

When the body remains in larynx, laryngotomy should be performed as early as possible: when it has descended lower, and perhaps always in young children, trachea ought to be opened. The substance may be ejected through glottis, or through artificial opening, directly the latter is made: should this not take place, patient's body must be inverted, and a few smart taps made to dislodge the substance. Inversion rarely followed by bad consequences, because patient will breathe through artificial opening: hence the coin, bean, or whatever it may be, will not give rise to that severe spasm of the glottis on touching it, which it would otherwise do. Perhaps this spasm of glottis might be overcome by inhalation of chloroform, without opening trachea. If tried, the surgeon should be prepared to perform tracheotomy immediately, in case of necessity.—Where extraneous body resists all efforts to remove it, the wound in the trachea should be kept open to favour expulsion subsequently. When opera-

tion is successful, incision should be immediately closed by strips of plaster or by sutures.

FOREIGN BODIES IN RECTUM.—May consist of:—(1) Substances which have been swallowed; such as stones of fruit, fish bones, coins &c. (2) Concretions formed in intestines, having a gall-stone or some mass of indigestible matter as a nucleus. (3) Articles forced through anus; as pieces of wood, syringe-pipes, gallipots, bottles, ferrules &c.

In attempting removal of substance, force to be avoided. If sphincter be contracted, relaxation should be procured by lubricating with iodoform (one part to four of lard). Chloroform seldom necessary. Indurated fæces to be extracted with a lithotomy scoop or handle of spoon.

FRAMBŒSIA.—From *Framboise*, a raspberry. Synon. *Anthracia Rubula; Lepra Fungifera; Pian; Yaws.*—A tubercular skin disease, said to be common in Africa, parts of America, and West Indies. Without precursory symptoms, portions of skin about face, scalp, axillæ, or genital organs are found covered with small dusky-red spots; which gradually become converted into larger tubercles, isolated at summits but collected together at bases, and resembling raspberries or mulberries in colour and form. Tubercles generally hard, covered with dry scales, sometimes inflamed. If inflammation spreads, ulceration sets in; a yellow sanious discharge resulting, which forms scabs. Disease continues for years, or even for life.

GALACTORRHŒA.—From Γάλα, milk; ῥέω, to flow. Synon. *Galactopleurosis; Superabundant Secretion of Milk.*—An excessive secretion of milk in nursing women. Owing to this excess, the milk continually oozes away: several pints may thus escape in course of twenty-four hours, keeping patient's clothing wet, and weakening her system. Hence result, anæmia; hysteria; dyspepsia; low spirits; and even phthisis or dropsy. Milk always found poor in quality, after a time.

Treatment. Infant to be weaned. Compression of breasts, by strapping with belladonna plaster. Belladonna, iodide of potassium, colchicum, camphor &c. 427. Nourishing food. Removal of uterine or ovarian disease. Iodide of lead and belladonna pessaries, 423.

GALL-STONES.—Synon. *Chololithus; Biliary Calculi.*—More frequently formed in gall-bladder, than in substance of liver—in branches of hepatic duct. Solitary calculi when found in gall-bladder are globular or oval or pear-shaped: associated stones usually have numerous polished facets, the result of pressure and mutual attrition. Gall-stones formed in branches of hepatic duct are small, rough or tuberculated, and of a dark colour—like black pepper-corns. Gritty sand-like deposits (biliary gravel) are met with in excretory passages of liver; consisting of minute calculi, or of a powder made up of cholesterine and cholochrome.—Ingredients of gall-stones,—Choles-

terine; cholochrome or colouring matter; earthy and alkaline salts—phosphate and carbonate of lime and magnesia; together with biliary and fatty acids.

Symptoms. Small calculi in branches of hepatic duct may give rise to dull pains about liver, perhaps shooting to shoulder; to symptoms of intermittent fever; gastric disturbance with nausea. As they usually only cause temporary obstruction to flow of a small quantity of bile, there is no jaundice.

Hepatic duct rarely blocked-up by a concretion. When it is, symptoms consist of intermittent pains; bilious vomitings; jaundice; and enlargement of liver owing to escape of bile from all the ducts being prevented. Fatal rupture of duct has occurred.

Calculi may be present in gall-bladder without producing morbid derangements. Rarely, they set up catarrhal or plastic inflammation; with pains about epigastrium, right shoulder, and hip. Loss of appetite; indigestion; constipation. Ulceration and perforation have occurred.

When calculi of any size leave the bladder and enter cystic duct, they cause well-marked symptoms—*hepatic*, or *biliary*, or *gall-stone colic*. Excruciating pain. Great tenderness of right hypochondriac and epigastric regions. Nausea and vomiting. Constipation and flatulence. Perhaps rigors. Slow pulse. — If stone recede into bladder, symptoms cease: if it remain impacted, dropsy of gall-bladder may result, and perhaps ulceration or gangrene of duct: if it be forced onwards into common duct, there is a sense of partial relief; though pain returns as duodenal orifice is reached. If common duct be long occluded, jaundice must ensue as there is no outlet for the bile. Where obstruction is permanent, jaundice increases; liver progressively enlarges; gall-bladder gets much distended. Ultimately, death occurs; unless the stone be forced into bowel, or unless it induces adhesive inflammation and gets into intestines or through abdominal walls, after ulceration and perforation have taken place. In event of passing into intestines, care must be taken that it escapes per anum; otherwise it may form a nucleus for a concretion, and produce complete obstruction at the end of a few months.

Treatment. *Relief of biliary colic*:—Hot water, or vapour, or air bath. Fomentations with decoction of poppy heads and camomile flowers. Linseed poultices. Poultices, with application of belladonna and opium, 297.—Morphia, chloroform, and Indian hemp, 317. Subcutaneous injection of morphia, 314. Opium and belladonna, 340, 344. Opiate enemata, 339. Inhalation of chloroform, or ether, or of a combination of both. Ice. Copious draughts of hot water containing bicarbonate of soda.

Expulsion of calculus and prevention of further formations:—Castor oil. Seidlitz powders, 169. Phosphate of soda and aloes, 149. Sulphate and phosphate of soda, 148. Pill of colocynth and hyoscyamus. Carlsbad waters, 496. Vichy, 479. Ems, 486. Eger, 498. Regulation of diet. Bloodletting and emetics to be avoided. Mixtures of ether and turpentine to dissolve calculi, useless.

GASTRALGIA.—From Γαστὴρ, the stomach; ἄλγος, pain. Synon. *Dyspepsodynia; Cardialgia; Heartburn.*—An unpleasant burning sensation in the stomach and gullet, coming on in paroxysms. A common symptom in indigestion.

Treatment. White bismuth, 65. Carbonate of magnesia, 62. Solution of potash, 69, 73. Bicarbonate of soda. Carbonate of ammonia. Saccharated solution of lime, 14. Lemon juice. Nitric acid. Dilute nitro-hydrochloric acid, 378. Hydrocyanic acid, 86, 377. Phosphoric acid. Ammonio-citrate of iron, 401, 403. Pepsine, 420.—See *Dyspepsia.*

GASTRIC CANCER.—From Γαστὴρ, the stomach.—Generally primary. May be of scirrhous, medullary, or colloid variety. Most frequent seats,—pyloric aperture; cardiac orifice; space along lesser curvature. More common in men than women: rare before fortieth year. Few cases survive beyond two years from commencement of symptoms.

Symptoms. Pain in epigastrium, of a burning, lancinating, or gnawing character; increased by food and pressure. Retraction of abdominal wall. Eructations of fœtid air. Nausea: frequent vomiting of ingesta and glairy mucus, of bloody sanious fluid, of dark grumous matter having an appearance of coffee-grounds. Constipation. Debility. Emaciation, which becomes extreme. Pulsating tumour, when mass lies over aorta: or a firm painful tumour in some part of epigastric, umbilical, or hypochondriac region. Cancerous cachexia.—Perforation may occur, with escape of contents of stomach into peritoneum. Or perforation, with communication between stomach and outside of abdomen; between stomach and colon; between stomach and duodenum; or between stomach and pleural cavities, lungs, or pericardium.

Treatment. Opium and belladonna, 344. Subcutaneous injection of morphia, 314. Opiate suppositories, 341. Iodoform, 338. Bismuth and soda, 65. Vegetable charcoal. Hydrochlorate of ammonia (gr. 15 every two hours), to relieve nausea and pain. Inhalation of small quantities of chloroform or ether, 313. Cod liver oil.—*Locally:*—Wet compress. Belladonna and opium, 297. Linseed poultices. Hemlock poultices. Fomentations. Ointment of aconitia, cautiously. Ointment of atropia.—*Diet:*—Milk; cream; asses' milk. Raw eggs. Essence of beef, 3. Nutrient enemata, 21, 22, 23.

GASTRIC ULCER.—From Γαστὴρ, the stomach. Synon. *Simple, Chronic,* or *Perforating Ulcer of Stomach.*—More frequent in women than men, and in poor than rich. Very rare before puberty. The ulcer is usually round or oval; seldom smaller than a fourpenny piece, or larger than a crown piece; and mostly seated on posterior surface, lesser curvature, or pyloric pouch.—May be fatal by hæmorrhage, perforation, or exhaustion.

Symptoms. Liable to some variety. Pain in epigastrium, and over lower dorsal vertebræ: increased by food. Violent aortic pulsations. Eructations of sour fluid: nausea and vomiting. Loss of

flesh. Amenorrhœa in young women, particularly if there be hæmorrhage. In favourable cases pains diminish as ulcer gradually heals: complete recovery.

Where perforation happens:—Violent pain, spreading from epigastrium all over belly. Tympanites. Great anxiety. Rapidly increasing prostration. Painless collapse in a few hours; death.

Treatment. Extract of opium (gr. 1 every six or eight hours). Opium and belladonna, 344. Henbane and Indian hemp, 337. Subcutaneous injection of morphia, 314. Bismuth and soda, 65. Bismuth and kino, 112. Powder of kino and opium. Nitrate of silver. Oxide of silver. Oxalate of cerium. Bicarbonate of potash, ammonia, and aconite, 67. Bromide of ammonium, 37. Iodide of potassium. Citrate of ammonia and hydrocyanic acid, 362. Steel and ammonia, 401. Steel and citrate of potash, 403. Iron alum, 116. Castor oil. Simple enemata, 188.—*Locally:*—Hot linseed poultices. Fomentations. Turpentine stupes. Sinapisms. Ice in a bladder.—*Great care as regards diet:*—Only small quantities of food at a time. Gruel, or arrowroot, with milk. Saccharated solution of lime and milk, 14. Iced milk. Wenham lake ice. In severe cases, complete rest of stomach: nutrient enemata, 21, 23. Subsequently,—White fish. Light puddings. Poultry. Weak brandy and water. *Avoidance of:*—Sugar. Beer. Wine. Coffee. All indigestible foods.—Great caution during convalescence.

GASTRITIS.—From Γαστηρ, the stomach; terminal *-itis.*—Several important affections of the stomach, more or less closely connected with inflammation, are included under this head.

1. **Acute Gastritis.**—Synon. *Inflammatio Ventriculi.*—Acute inflammation of mucous membrane of stomach seldom or never arises idiopathically. A frequent result of poisoning by mineral acids, caustic alkalies, arsenic &c. Sometimes produced by swallowing boiling water, excessive doses of antimony, or use of mustard emetics.

Symptoms. In gastritis due to an irritant poison,—increasing burning pain in epigastrium, aggravated by pressure. Distressing nausea; violent retchings. Accelerated pulse and breathing. Great thirst: desire for cold drinks which are vomited immediately. Constipation. Scanty and high-coloured urine. Extreme prostration sets in quickly. Commonly death from exhaustion.—In exceptional cases, early symptoms very slight. Disease may not be suspected until a few hours before death.

Treatment. Purgative enemata, 188. Nutrient enemata, 21, 22, 23. Free sucking of ice. Opium and belladonna, 344. Opiate suppositories, 340. Subcutaneous injection of morphia, 314. Linseed poultices. Poppy head fomentations. Mucilaginous drinks: iced milk.—*Avoidance of:*—Emetics. Stomach pump.

During convalescence:—Great care as to diet. Small quantities at short intervals, of farinaceous substances and broths. Milk: cream. Raw eggs. Ice.

2. Chronic Gastritis.—A comparatively mild disorder, unless of

long duration. May produce thickening and induration of coats of stomach, narrowing of pylorus, or ulceration perhaps going on to perforation.

Symptoms. Anorexia. Tenderness at epigastrium and sternum. Pain and sickness after meals. Slowness of digestion. Gastrodynia. Pyrosis. Disordered bowels.

Treatment. Low diet. Iced water, or ice. Removal of cause.—See *Dyspepsia.*

3. Gastric Catarrh.—Catarrhal affections of stomach when slight usually spoken of as "bilious attacks."—*Symptoms* are those of indigestion: furred tongue, oppression at epigastrium, vomiting of bile, giddiness, "sick headache."—*Remedies* consist of rhubarb, ipecacuanha, mercury and chalk, Seidlitz powders. Meagre diet. Soda water. Ice.

Chronic catarrh or mucous flux may succeed a bilious attack, or arise independently. Often coexists with chronic bronchitis, hooping-cough, phthisis, and pulmonary emphysema. There is congestion of capillary gastric vessels, with excessive secretion of glairy mucus.—*Symptoms* are those of indigestion. Often a craving for food; only a small quantity can be taken without sense of oppression, vomiting &c.—*Remedies* are such as restrain secretion of mucus and restore tone of stomach. Sulphite of soda, 48. Bismuth, 65, 112. Kino and logwood, 108. Iron alum, 116. Tannin lozenges. Aromatic sulphuric acid. Calomel (gr. 5), if there be constipation. Milk and saccharated solution of lime, 14. Arrowroot. Gruel. Bread and milk. White fish. Poultry. Sherry and water. Soda water.

Severe examples of gastric catarrh sometimes spoken of as "gastric fevers."—Chief *symptoms* are heat of skin; quick and full pulse; vomiting, with epigastric pain; scanty urine loaded with lithates. Superficial ulceration of mucous coat may result.—*Remedies* are rest, low diet, demulcent drinks, mild aperients, effervescing salines. An emetic of ipecacuanha at commencement. Hot fomentations. Poultices. Turpentine stupes.

4. Induration of Pylorus.—Synon. *Fibroid Infiltration of Pylorus; Plastic Linitis; Cirrhotic Inflammation.*—Consists of an abnormal development of fibrous tissue in sub-mucous areolar membrane about pyloric portion of stomach. As a consequence there is stricture, perhaps with dilatation of stomach and hypertrophy of muscular coat.

Symptoms. Resemble those produced by cancer, save that they extend over a longer space of time. Emaciation and progressive debility. Pyrosis. Sickness. Constipation. Mental depression. Appetite may be ravenous: a large meal causes great suffering, as food tries to pass through pylorus. Vomited matters may look like yeast, and contain sarcinæ or torulæ: often consist only of partially digested food. Indurated pylorus can be felt, like a tumour, through abdominal walls. Aortic pulsation. Disturbed sleep. Prostration. Death from inanition; though by strict attention to diet, life may often be prolonged for some years.

Treatment. Iodide of potassium. Iodide of ammonium. Hydrochlorate of ammonia. Liquor calcii chloridi (Phar. Dub.). Opium. Belladonna. Belladonna plaster. Wet compress. Cod liver oil. Liquid food,—milk, cream, raw eggs, soups, wine. Nutrient enemata. Warm clothing.

5. Dilatation of Stomach.—Generally due to some affection of pylorus causing contraction, so that food is impeded from passing into duodenum. Dilatation goes on slowly and steadily, until stomach comes to occupy a large portion of abdominal cavity.

Symptoms. Stomach-cramp, heartburn, water-brash, flatulence, constipation, and sometimes attacks of vomiting. Appetite may be voracious. Where there is vomiting, ejected matters are large in quantity, intensely acid, often resemble yeast: microscopically examined, Sarcinæ ventriculi are found, and sometimes the yeast fungus—Torulæ cerevisiæ. These vegetable organisms probably result from long detention of food in stomach.

Treatment. Regulation of diet: unfermented or aërated bread. Food not to be too limited, where appetite is large. The author has known suicide committed from not allowing sufficient food to relieve the hunger.—Formation of parasites to be checked by sulphite of soda, 48. Sulphite of potash. Hyposulphite of soda.—For relief of other symptoms, see *Gastralgia; Gastrodynia; Pyrosis; Dyspepsia.*

GASTRO-COLIC FISTULA.—A communication between the stomach and colon takes place with greater frequency, than between stomach and duodenum. More commonly due to cancerous than simple ulceration. Stomach and colon not always closely adherent: a cavity may intervene, as if a mass of cancer or tubercle had connected the two viscera, and been gradually hollowed out.—The *symptoms* are chiefly fæcal vomiting, and expulsion of undigested food with the stools.

GASTRO-CUTANEOUS FISTULA.—A communication between the stomach and outside of abdomen. May result from suppuration in abdominal wall; wounds; from long-continued pressure, voluntarily produced by hysterical women; or from simple or malignant perforating ulcer of stomach, this viscus first contracting adhesions with peritoneum. In either case it is almost impossible to close the opening. A plug must be worn to prevent escape of contents of stomach.

GASTRODYNIA.—From Γαστὴρ, the stomach; ὀδύνη, anguish or pain. Synon. *Spasmus Ventriculi; Stomachalgia; Cramp in the Stomach.*—May occur in connexion with organic disease of stomach, or from simple indigestion.

Treatment. White bismuth. Oxide of silver. Oxalate of cerium. Morphia. Hydrocyanic acid. Wood charcoal. Creasote. Sinapisms. Linseed poultices. Wet compress.—See *Dyspepsia; Pyrosis.*

GENERAL PARESIS.—From Πάρεσις, want of strength, from

παρίημι, to relax. Synon. *Progressive Paralysis of the Insane.*—See *Insanity.*

GLANDERS.—Synon. *Equinia; Farcinoma; Farcy.*—A malignant febrile and contagious disease; due to a specific poison received from a glandered horse, ass, or mule. Glanders and farcy are essentially identical, both having their origin in the same poison. But when the effects of the morbid agent are especially manifested in the nasal cavities, the disease is known as *glanders;* while, when the lymphatic system suffers, it is called *farcy.*

Treatment. *Prophylactic:*—Cauterization of inoculated tissue. Sulphite of soda or magnesia, 48.

Curative:—Sulphurous acid. Sulphite of soda or magnesia, 48. Iodide of potassium, grs. 10 to 15 thrice daily. Bark. Quinine. Arsenic. Strychnia. Carbonate of ammonia. Disinfectant washes to nostrils and ulcers. Creasote injections. Vapour baths. Stimulants. Nourishing food. Pure air. Abscesses to be opened.

GLAUCOMA.—From Γλαυκός, sky-blue.—A term formerly applied to opacity of the lens. Now used arbitrarily to denote a form of blindness attended with disorganization of the various tissues of the eyeball. The symptoms are the result of excessive intraocular pressure, this being due to an increase in quantity and firmness of the vitreous humour (Hulke). Glaucoma peculiar to middle life and old age: its occurrence sometimes foreshadowed by quickly increasing presbyopia.

Symptoms. The disease may be *acute;* when the glaucomatous changes take place rapidly, and quickly end in loss of vision. Attack perhaps commences suddenly during night, with severe throbbing pain in one eye and temple. Pain continues; on following morning, sclerotic found discoloured and congested. Iris becomes of a dusky hue, and motionless: cornea gets dim: pupil widely dilated, and sometimes of an irregular oval shape: eyeball felt to be unnaturally hard. Sometimes, complaint made of bright flashes of light darting before the eye. Occasionally there is slight temporary improvement, though blindness subsequently results. Both eyes affected; disease usually commences in one a few days before the other.

In *chronic* glaucoma, same symptoms; but they come on insidiously, with much less pain. Morbid changes spread over many months. Their sequence seems to be as follows:—First, in retina and choroid; going on, perhaps, to serous effusion between these two coats, which causes a bulging forwards of lens and iris, by pressing from behind upon vitreous body. Then, congestion and inflammation of iris and cornea. Last of all, opacity of lens, as a consequence of its deranged nutrition (Dixon).

Ophthalmoscope usually shows extravasations of blood in retina and choroid; serous effusion between retina and choroid, retina appearing as if raised into folds; small clots in vitreous humour; and an excavation of optic nerve entrance, with pulsation of arteria centralis retinæ.

Treatment. Bleeding, blistering, and mercury have invariably done great harm. All that the physician can do is to improve the general health. Whether the surgeon can best reduce the excessive tension of the eyeball, in acute cases, by iridectomy, or simply by evacuating the aqueous humour, is a disputed point.

GLOSSITIS.—From Γλωσσα, the tongue; terminal *-itis*. Synon. *Inflammatio Linguæ; Inflammation of the Tongue.*—See *Tongue Diseases.*

GLUCOHÆMIA.—From Γλυκὺς, sweet; αἷμα, blood. Sweet blood. —See *Diabetes Mellitus.*

GLUCOSURIA.—From Γλυκὺς, sweet; οὖρον, the urine. Sweet urine.—See *Diabetes Mellitus.*

GOITRE.—Perhaps from *Guttur*, the throat.—See *Bronchocele.*

GONORRHŒA.—From Γονὴ, semen; ῥέω, to flow. Improperly used to signify an inflammation, more or less acute, of one or more portions of the genito-urinary passages, accompanied with a muco-purulent discharge. Synon. The *Clap.*

1. Gonorrhœa in Male.—Inflammation of the mucous membrane of the urethra,—generally of the anterior portion. It is attended with the flow of a contagious purulent or muco-purulent fluid.

Symptoms. About third day from exposure to contagion, heat and itching of glans penis. Fulness and redness of urethral orifice. Milky purulent discharge, which becomes muco-purulent. Scalding. Pain in groins, irritability of bladder, weight and dragging pain about testicles.

Complications:—Painful erections or chordee. Balanitis. Hæmorrhage from urethra. Retention of urine. Abscess. Prostatitis. Cystitis. Orchitis. Gonorrhœal ophthalmia. Gonorrhœal rheumatism.

Treatment. Balsam of copaiba and cubeb pepper: very inefficient, nauseous, apt to derange stomach and to produce skin eruptions. Mercury, turpentine, creasote, nitrate of potash, ergot of rye &c. worse than useless. Oil of yellow sandal wood (Sirium myrtifolium) and Gurjun balsam or wood-oil (product of the Dipterocarpus turbinatus) have been recommended.

Abortive treatment:—In early stage always very dangerous. It consists of injections of nitrate of silver (grs. 5—10 to the fl. oz.), active purgatives, perfect rest, abstinence from stimulating food and drinks, and hot bathing; followed by mild injections of subacetate of lead, and gentle aperients.

In ordinary cases:—Mild aperients. Moderate rest. Diet free from salt meats, pastry, cheese, coffee, wine, beer, and spirits. Injections—from 1 to 3 grs. to the fl. oz.—of alum, acetate of lead, sulphate of zinc, chloride of zinc, acetate of zinc, nitrate of silver, sul-

phate of copper, or sulphate of iron. Testicles to be supported by a suspensory bandage.

Astringent sticks or suppositories, made with cocoa butter and alum or sulphate of zinc or tannic acid, so as to be introduced into urethra. Strips of lint or linen, moistened with an astringent solution, passed down urethra for two inches. Cauterization of urethra with nitrate of silver. Copaiba mixed with urine as an injection? Copaiba enemata and suppositories?

For relief of scalding:—Warm baths. Liquor potassæ in camphor water. Opium. Drinking freely of tea with milk, or of plain water. Demulcent drinks useless, except as vehicles for water.

For relief of chordee:—Camphor (grs. 5) and belladonna (gr. $\frac{1}{2}$) in a pill at bed-time. Spirit of camphor in drachm doses. Sleeping on a mattress, without much covering; towel with a knot over spine, or a cotton reel, to prevent lying on the back.

For retention of urine:—Warm bath and opiate suppository, before resorting to catheter.

For hæmorrhage from urethra:—Application of ice. Pressure by introduction of a large bougie. Pressure externally, by pad and bandage.

2. Chronic Gonorrhœa or Gleet.—Transparent mucous discharge. No scalding nor pain. Frequent calls to pass urine, when the prostate or the neck of the bladder is irritable. Pain in perineum.

Treatment. Temperate mode of living. Attention to digestive organs. If there be an organic or permanent stricture, employ dilatation, forcible rupture, or incision.

Where patches of the urethra are contracted and over-sensitive, use bougies smeared with some astringent ointment. Solid nitrate of silver, by means of Lallemand's porte caustique. Astringent injections. Suspensory bandage for testicles.

If there be irritation about prostate or neck of bladder, avoid bougies and injections. Employ hot baths, warm bathing of penis and perineum, opiate suppositories, and application of extract of belladonna to perineum. Infusions of uva ursi, pareira, or bucco. Iodide of potassium, 31. Painting under surface of urethra and perineum with tincture of iodine. Application of a blister to penis for one or two hours.

Where there is constitutional debility,—Phosphoric acid and bark, 376. Gallic acid, 103. Iron alum, 116. Steel and cantharides, 400. Nux vomica. Cod liver oil. Sea bathing. Nourishing diet.

3. Gonorrhœa in Female.—Consists of acute or chronic inflammation of urethra, vulva, vagina, or canal of cervix uteri. Not to be distinguished from inflammations due to other causes than impure sexual intercourse.

Treatment. Hot hip baths. Vaginal injections of warm water. Mild aperients. Rest. Low diet. Astringent injections, 425. Medicated pessaries, 423. Solid nitrate of silver.

GOUT.—From the Fr. *Goutte*, a drop; because it was thought to be produced by a humour which fell *goutte à goutte* into the joints.—

May be defined as a specific inflammation, having a constitutional origin, and being much favoured by hereditary taint. It is accompanied by great pain and swelling of the affected joint, fever with general disturbance, and especially by some disorder of the digestive organs. The disease has a tendency to recur again and again, after variable intervals.

Symptoms. The acute attack may be preceded by warnings,—heartburn, flatulence, dull pain in left side of chest, irregularity of heart's action, dry skin, urticaria, and urine loaded with urates. It may come on suddenly in the night, with,—acute pain in great toe, heel, or instep; a rigor followed by heat; tenderness and swelling of affected part; fever, irritability, and restlessness; constipation with furred tongue; and urine loaded with urates, phosphates, or containing albumen. The attack passes off: an interval elapses, of length proportionate to the care taken; and then another attack follows. Tophi or chalk-stones form round the joints, consisting chiefly of urate of soda; small deposits on auricle of ear.

Complications:—In retrocedent gout metastasis occurs from the joint to some internal organ,—to the stomach, heart, membranes of the brain. Often caused by application of cold to gouty limb.

Gouty diathesis without local manifestations, causing neuralgia, dyspepsia, palpitation, syncope, congestion of liver, urticaria, piles, pains about the head, toothache, tonsillitis &c.

Treatment. *Acute stage:*—Bleeding to four or six ounces, where the constitution is sound, to relieve overloaded heart and congested vessels. Mild laxatives containing aloes, senna, rhubarb, jalap &c. 144, 145, 146, 148, 149, 151. Calomel, colchicum, aloes, and ipecacuanha pill, 46. Acetate, citrate, or bicarbonate of potash. Emetics. Opium. Hot air or vapour bath. Colchicum,—in Vichy water, or with sedatives and alkalies, or iodide of potassium, 31, 46, 212, 351, 352. Hellebore and colchicum, 163. Carbonate of ammonia. Liquor potassæ. Liquor sodæ. Sulphur.—*Locally:*—Cotton wool and oiled silk. Anodyne lotions, 265, 281, 297. One or two leeches. Poultices, with extract of belladonna or opium. Ointment of veratria. Small blisters, in chronic cases.—*Diet:*—Milk. Arrowroot. Tapioca. Tea. Diluents. Soda water. Vichy water. Avoid animal food too soon.

Chronic stage:—Maintain proper action of bowels and skin. Colchicum. Alkalies. Iodide of potassium. Guaiacum. Extract of the physalis alkekengi. Quassia. Calumba. Bark. Mild ferruginous tonics, 394, 402, 403. Arsenic, with colchicum or iodide of potassium or steel, 52, 399. Phosphate of soda. Avoid opening chalk stones. Friction with liniments of iodide of potassium or iodide of ammonium, 280. Regulate diet;—Animal food in small quantity; white fish; milk and eggs. Avoidance of malt liquors, port, and sherry; sugar to be used sparingly.

In irregular or misplaced attacks:—Salines and colchicum. Ether. Ammonia. Chloroform. Brandy. Mustard pediluvia. Warmth to the joints. Sinapisms. Turpentine stupes.

To prevent repetition of attack:—Well regulated diet. Food from which healthy chyle can be extracted. Claret. Hock. Hungarian

wines (Ofner or Carlowitz). Brandy and water. Soda water. Vichy water. Infusion of leaves of common ash. Mild aperients. Carbonate or citrate of lithia, 64. Moderate mental and bodily exertion. Avoidance of too great sexual indulgence. Hot air or water baths. A visit to Bath, 460; Buxton, 464; Cheltenham, 461; Harrogate, 466; or Leamington, 463. Wiesbaden, 489. Vichy, 479. Carlsbad, 496. Aix-la-Chapelle, 483.

GRAVEDO.—From *Gravis*, heavy. Catarrhal inflammation of membrane lining frontal sinuses.—See *Catarrh.*

GRAVES' DISEASE.—This name has been given to a singular combination of three symptoms,—palpitation, protrusion of eyeballs, and enlargement of thyroid gland. More common in females than males: there is often some obscure connexion between it and disturbance of the uterine functions. Generally believed that a neurosis of the cervical sympathetic nerve is the cause of the affection. The cases run a chronic course. The remedies to be resorted to will depend on the condition of the system;—*i.e.* whether there is any syphilitic taint, or tuberculosis, or simply a state of anæmia.

HÆMATEMESIS.—From Αἷμα, blood; ἐμέω, to vomit. Synon. *Gastrorrhagia; Hæmorrhœa Ventriculi; Vomiting of Blood.*—Hæmorrhage from the stomach may be either acute or chronic: latter most dangerous, as indicative of some disease of abdominal viscera.

Symptoms. Blood vomited in considerable quantities. Blood not frothy: of a dark colour. Blood mixed with food. Melæna very common. Gastric or duodenal symptoms. Perhaps, simple or malignant ulcer: cirrhosis of liver: aneurism of one of the branches of abdominal aorta: vicarious menstruation: scurvy.

Treatment. *In acute form:*—Abstinence from food. Perfect rest in horizontal posture. Cold to the epigastrium, 118. Ice or cold acidulous drinks. Gallic acid, 103. Turpentine, 102. Sulphuric acid and opium, 100. Tincture of perchloride of iron, 101. Lead and acetic acid, 117. Alum and sulphuric acid, 116. Ipecacuanha. Enemata of beef tea and brandy, 21, 23.

In chronic form:—Mineral acids with bark, 376. Quinine and iron, 380. Ammonio-sulphate of iron, 116. Cream; raw eggs; essence of beef. Cod liver oil.—See *Hæmoptysis.*

HÆMATOID CANCER.—From Αἷμα, blood; terminal *-ides.* Synon. *Fungus Hæmatodes.*—This disease is probably a soft medullary or other cancer, the substance of which has become more or less infiltrated with blood. When it protrudes through the skin it forms a large vascular mass, somewhat resembling a clot of blood.—See *Cancer.*

HÆMATOMA AURIS.—From Αἱματόω, to convert into blood: *Auris*, the ear.—A sanguineous tumour about outer surface of auricle of ear. Often symmetrical. Especially affects insane. The explanation of its occurrence is:—(1) The states of the circulation, nu-

trition, and development of tissues which make up the ear-lobule, and cover the helix, very commonly coincide with similar conditions of the encephalic tissues. (2) Development of cartilages of external ear, and their several parts, is in relation with encephalic and cranial development of individual (Laycock).—See *Insanity*.

HÆMATOZOA.—From Αἷμα, blood; ζῶον, an animal.—The following entozoa have been found in human blood:—

(1) Distoma Hæmatobium.—An entozoon with a flat elongated body and a cylindrical tail: inhabits the vena portæ, and the veins of the mesentery, liver, bladder, and intestines. It is very common in Egypt, and especially infests the bodies of those who drink the unfiltered waters of the Nile &c. It is probably the cause of a peculiar form of hæmaturia somewhat prevalent in Southern Africa and in the Mauritius.—Chief remedies:—Calomel. Turpentine. The efficacy of either very doubtful.

(2) Hexathyridium Venarum.—About three lines in length. Has been found in venous blood, and in sputa of patients with hæmoptysis.

(3) Fasciola Hepatica.—Has been discovered in the vena portæ. This fluke and the *Distoma lanceolatum* are often found in the gall-ducts and bladder of the sheep, producing the Distemper or Rot.—See *Entozoa*.

HÆMATURIA.—From Αἷμα, blood; οὖρον, urine. Synon. *Hæmuresis; Sanguis in Urinæ; Bloody Urine.*—Hæmorrhage from the mucous membrane of the urinary passages,—the kidneys, bladder, or urethra.

Symptoms. Urine smoky, or of a black hue, or of a port wine tint. Albumen present. When from kidney, the blood equally diffused through the urine. When from bladder or urethra, blood comes away after passing clear urine. Blood-casts of renal tubes? Cancer cells? Renal calculi?

Endemic hæmaturia of Egypt, Southern Africa, and Mauritius due to the Distoma hæmatobium.—See *Hæmatozoa*.

Treatment. *In malignant disease or calculus:*—Gallic acid, 103. Tincture of perchloride of iron, 101. Sulphuric acid and opium, 100. Infusion of matico. Ruspini's styptic. Turpentine. Creasote. Krameria. Ergot of rye. Opium. Rest in recumbent posture. Sinapisms. Turpentine stupes. Application of ice to loins.

In renal disease, or some morbid poison in the blood:—Hot air baths. Warm water baths. Compound jalap powder. Ferruginous tonics,—especially tincture of perchloride of iron, and iron alum.

From disease of urethra:—Application of ice. Use of a large bougie for some hours.

Vesical hæmorrhage:—Injections of alum or tannin, grs. 30 to water fl. oz. x. Ice to pubes. Ammonio-sulphate of iron, 116.

HÆMOGASTRIC FEVER.—From Αἷμα, blood; γαστὴρ, the stomach. Synon. *Febris Flava; Pestilentia Hæmagastrica*

Pestis Intertropica; Typhus Icterodes; Synochus Icterodes; Malignant Pestilential Fever.—See *Yellow Fever.*

HÆMOPTYSIS. — From Αἷμα, blood; πτύω, to spit. Synon. *Emoptoe; Sputum Sanguinis; Hæmorrhagia Pulmonis; Pneumorrhagia.*—The escape of blood through the mouth—from larynx, trachea, bronchial tubes, or air-cells of lungs. Of little consequence, comparatively, when due to some accidental and transitory cause. An important indication of bronchial, pulmonary, cardiac, or aortic disease when of frequent recurrence, at variable intervals.

Symptoms. Blood coughed up in mouthfuls. Blood frothy, and of a florid red colour. Blood mingled with sputa. Absence of melæna. Bronchial or pulmonary symptoms. Tubercular deposit? Aortic aneurism?

Distinction between hæmoptysis and hæmatemesis :—

In *hæmoptysis:*—	In *hæmatemesis:*—
Dyspnœa; pain or heat in chest.	Nausea; epigastric tension.
Blood coughed up in mouthfuls.	Blood vomited profusely.
Blood frothy.	Blood not frothy.
Blood of a florid red colour.	Blood dark coloured.
Blood mingled with sputa.	Blood mixed with food.
Absence of melæna.	Melæna very common.
Bronchial or pulmonary symptoms.	Gastric or duodenal symptoms.

Treatment. Strict mental and bodily repose. Rest in bed. Head and shoulders to be elevated. Unstimulating diet. Ice and cold drinks. Blisters. Turpentine stupes. Sinapisms. Dry cupping. Ice to chest.

Gallic acid, 103. Mineral acids, 99, 100, 115. Acetic acid. Ammonio-sulphate of iron, 116. Acetate of lead and opium, 117. Creasote. Common salt? Ergot of rye. Turpentine, 102. Alum. Infusion of matico. Hydrocyanic acid. Morphia. Emetics of ipecacuan. Antimony? Digitalis? Leeches? Venesection? A ligature round the limbs. Inhalation of atomised fluids, medicated with tannic acid, alum, perchloride of iron, or turpentine, 262.

HÆMORRHAGE.—Synon. *Sanguifluxus; Hæmorrhœa; Loss of Blood; Rupture of a Bloodvessel.*—The escape of blood from the vessels in which it is naturally contained constitutes hæmorrhage (*hæmorrhagia*, from Αἷμα, blood; ῥήγνυμι, to break out).

Varieties. The chief subdivisions are these :—(1) *Traumatic* when a vessel has been directly divided, and *spontaneous* when the bleeding has resulted from some constitutional cause. (2) *Symptomatic* when clearly a result of some disease, as tubercle, cancer &c., and *idiopathic* or *essential*, when no such connexion has been perceptible. Or, (3) *active* hæmorrhage when congestion or inflammation has preceded the flow, and *passive* when there have previously existed signs of debility, with poverty of blood. Moreover, hæmorrhages have been termed *constitutional* when they occur at intervals, and seem to be of service to general health, as in the bleeding from piles in plethoric

people: *vicarious* when supplemental of some other hæmorrhage, as where a woman has periodical bleeding from nose in place of usual catamenial discharge: and sometimes spoken of as *critical* when they occur during progress of some disease, and produce marked good or bad effects.

The *seat* of the hæmorrhage is likely to vary with the patient's age. Bleeding from the nose is most common in youth: from the lungs and bronchi, stomach, urinary passages, and uterus in adults: and from the cerebral vessels and rectum in old age.

Treatment. Cool apartment. Repose. Freedom from excitement. Simple and unstimulating diet. Position such as to prevent afflux of blood to bleeding organ. Application of cold. Turpentine stupes. Blisters. Ligatures.

Ice. Gallic acid. Tannin. Mineral acids. Ammonio-sulphate of iron. Tincture of perchloride of iron. Creasote. Ipecacuanha. Acetate of lead. Ruspini's styptic. Oil of turpentine. Nitrate of silver. Oxide of silver. Alum. Kino. Matico. Rhatany. Corrosive sublimate. Calomel. Ergot of rye. Opium. Venesection. Digitalis. Aperients. Transfusion. — See *Apoplexy; Epistaxis; Hæmatemesis; Hæmaturia; Hæmoptysis; Menorrhagia; Melæna; Otorrhagia; Stomatorrhagia.*

HÆMORRHAGIC DIATHESIS.—May be hereditary, or will perhaps be induced by insufficient food.

Symptoms. Ecchymoses. Dropsy. Painful swellings round joints. Bleeding from umbilicus a few days after birth; from nose or gums in youth; from urinary passages or rectum in after-life. Fatal loss of blood after leech-bite, extraction of a tooth, rupture of hymen &c.

Treatment. Avoidance of surgical operations. Caution after accidents. Nourishing food.—See *Hæmorrhage.*

HÆMORRHOIDS.—From Αἷμα, blood; ῥέω to flow. Synon. *Proctalgia Hæmorrhoidalis; Piles.*—Small tumours situated within or at verge of anus. Two varieties: — (1) *External*, or those outside sphincter muscle. (2) *Internal*, or such as are within sphincter. Often, the two kinds coexist.

1. External Hæmorrhoids.—Consist either of a knot of varicose veins, or of one or more cutaneous excrescences. In first case, the veins may contain fluid blood: more frequently their contents have coagulated, forming one or several tense and purple swellings. The excrescences consist chiefly of hypertrophied skin and areolar tissue.

Symptoms. When indolent, only troublesome from their bulk. If they become congested or inflamed, considerable pain arises; with heat and throbbing, tenesmus, backache, irritability of bladder, perhaps retention of urine, and uterine irritation in women.

Treatment. Daily action of bowels to be procured. Confection of pepper. Confection of senna. Confection of sulphur. Compound electuaries, 194. Simple enemata, 188. Sulphur and magnesia, 153. Pepsine and extract of aloes, 155. Castor oil. Mercury and chalk.

Taraxacum. Pullna water. Anus to be sponged with cold water after every stool. Sponging parts round anus, when relaxed, with lotions of alum or tannic acid. Ointment of galls. Ointment of galls and opium.—Plain nourishing food; free from highly seasoned dishes, coffee, and alcoholic stimulants.—Hot bathing and poultices, where there is inflammation.—Incision, with evacuation of contained clot, when tumour is swollen and tender.—Excision of growths with curved scissors.

2. **Internal Hæmorrhoids.**—May be simple or multiple. Of three kinds:—(1) Spongy vascular growths, having a red granular appearance, and soft elastic texture like that of erectile tissue. (2) Made up of lower branches of the plexus of hæmorrhoidal veins. Branches dilated: often plugged with coagula. (3) Pendulous tumours, composed of fibro-areolar tissue.

Symptoms. The piles only protrude during defecation at first. Afterwards, as sphincter gets dilated by their pressure, and relaxed by attacks of hæmorrhage, they are constantly down save when patient is in recumbent posture. Loss of blood, from a mere tinging of fæces to escape of many ounces. Uneasiness about rectum: tenesmus. Irritability of bladder, and of uterus in women. Muco-purulent discharge. Loss of flesh. Anæmia. Sallowness of complexion. Derangement of functions of liver, stomach and bowels &c.

Treatment. Daily action of bowels to be insured by remedies recommended for external piles. Improvement of general health. Attention to functions of liver, digestive organs &c. Nitro-hydrochloric acid. Quinine. Arsenic. Sulphur. Cold water enemata. Enemata of solutions of gallic acid, alum, ammonio-iron alum, or of tincture of perchloride of iron to check hæmorrhage. When protruded piles cannot be replaced, it may be necessary to reduce their size by applying ice, or by puncturing, before making further attempts. If, from constriction of sphincter, protruded piles have become strangulated and more or less gangrenous, they must be poulticed, and pain relieved by opiates, till they slough off.

Radical cures:—By cauterization with nitric acid. Simple excision dangerous, owing to probability of hæmorrhage. Excision with écraseur. Use of clamp and excision; applying actual cautery, or nitric acid, before removing clamp. Operation by ligature the safest and most to be recommended.

HEADACHE.—Synon. *Cephalalgia*, from Κεφαλή, the head; ἄλγος, pain.—Of common occurrence during progress of most acute and many chronic diseases. Affects adults more than young or old: inhabitants of towns more than country folk: nervous and delicate more than robust: higher classes of society more than lower.

Varieties. Four principal forms may be noticed:—(1) *Organic headache*, due to disease of brain or membranes, and especially of such in early stage. Accompanied by vertigo; sometimes by vomiting, confusion of mind, noises in ears. Pain, sharp or dull or lancinating or throbbing: more severe in disease of meninges than of brain substance. When due to inflammation, pain intense, increased by

warmth or noise or movements, and lessened by elevating head.—In valvular disease of heart, the interrupted supply of blood to nervous system causes headache.

(2) *Plethoric headache*, dependent on congestion of cerebral vessels. Sense of pulsation in ears: giddiness on stooping. Constipation. Those who live too freely, take but little exercise, rise late in morning &c. are subject to it. It may arise from sudden suppression of accustomed discharge, as of catamenia.

(3) *Bilious headache*, temporary or constant. When temporary, produced by some error of diet, any excess in food or wine. Most severe in morning, after restless night. Passes away with cause. Constant sick headache occurs in persons with weak stomachs, and in the gouty. Stomach and duodenum out of order: tongue coated, breath offensive, flatulence, low spirits, nausea. Hepatic functions ill-performed: stools clay coloured. Urine scanty and high coloured.

(4) *Nervous headache*, often owing to debility and exhaustion. Poverty of blood from renal disease, hæmorrhage &c. may induce it. Irritation of decayed teeth, or offensive stumps, a frequent cause.—In *hemicrania*, or *brow-ague*, symptoms are intermittent, recurring with regularity of an ague fit.—The *megrims* is a form which affects delicate women, especially if exhausted by over-lactation. — When hysterical young women suffer from nervous headache it is often confined to a single spot, resembles the pain of driving a nail into the part, and is known as *clavus hystericus*.

Treatment. The indications are to relieve congestion of head and dyspeptic symptoms, while tone is given to general system. Diet to be regulated: often beneficial to discontinue tea and coffee. Milk taken at night may be injurious. Tobacco in all forms to be forbidden. In organic headaches, attention to be paid chiefly to cerebral mischief.

Sulphate of soda and taraxacum, 144. Aloes, gentian, and liquor potassæ, 148. Pepsine and aloes, 155. Rhubarb and magnesia, 165. Rhubarb and blue pill, 171. Nux vomica and rhubarb, 175. Colchicum, 46. Phosphate of iron, 405. Effervescing citrate of magnesia. Hydrochlorate of ammonia, 60. Aconite. Camphor. Nitro-hydrochloric acid, 378. Where there is albuminuria, iron alum, 116: tincture of perchloride of iron and hydrochloric acid, 101. Quinine or arsenic in hemicrania, 52, 379, 381. Zinc or steel in hysterical forms, 394, 403, 410, 414. Stramonium. Shower baths. Mustard pediluvia. Holding arms high above the head sometimes palliative, owing to effect on cerebral circulation. Compression of temporal arteries with pads and a bandage round forehead. Cold lotions, sponge dipped in cold water, eau de Cologne &c. to forehead and crown. Dry cupping, or blisters, or sinapisms, or setons, to nape of neck. Extraction of bad teeth. Change of air.

HEMERALOPIA.—From Ἡμέρα, daylight; ὄπτομαι, to see. Synon. *Visus Diurnus; Dysopia Tenebrarum; Dayvision.*—That condition in which vision is only distinct during daylight.—See *Amaurosis.*

HEMICRANIA.—From Ἥμισυς, half; κρανίον, the skull. Synon. *Hemicephalœa; Neuralgia Cerebralis; Megrims.*—Headache affecting one side of brow and forehead.—See *Neuralgia; Headache.*

HEMIOPIA.—From Ἥμισυς, half; ὤψ, the eye. Synon. *Visus Dimidiatus; Amaurosis Dimidiata.*—That form of faulty vision in which only half an object is seen.—See *Amaurosis.*

HEMIPLEGIA.—From Ἥμισυς, half; πλήσσω, to strike. Synon. *Semiplegia; Semisideratio.*—Paralysis limited to one side of the body.—See *Paralysis.*

HEPATIC ATROPHY.—From Ἡπατικός, affecting the liver: Ἀ, priv.; τρέφω, to strengthen, or support. The secretion of bile may be suspended owing to acute atrophy; as well as from cirrhosis, extensive cancer &c.—See *Acholia.*

1. Acute Atrophy of Liver.—Synon. *Yellow Atrophy of Liver; Acute Wasting of Liver; Softening of Liver; Diffused Hepatitis; Fatal Jaundice.*—A most remarkable disease; consisting, as a rule, of a rapid and complete destruction of the hepatic cells through every part of the gland. Women more obnoxious to this rare affection than men; pregnancy seems to predispose to it. Among other alleged exciting causes are,—grief or anxiety, sudden alarm, fits of passion; venereal excesses, syphilis, excessive use of mercury; drunkenness and dissolute habits; poisons of malaria and typhus. Many points of resemblance between acute atrophy and yellow fever.

Symptoms. *Preliminary stage:*—Headache, loss of appetite, thirst, drowsiness, mental and bodily depression, irregularity of bowels, tenderness of abdomen. Then, conjunctivæ become yellow: skin gets slightly jaundiced. These precursory symptoms may last from a few days to three or four weeks; or may be altogether absent.

Confirmed stage:—Jaundice; perhaps with petechiæ and large ecchymoses. Vomiting; at first of mucus, afterwards of matter like coffee-grounds (altered blood). Irritability, great despondency; soon followed by wandering merging into noisy delirium and convulsions, stupor and deep coma.—Tongue and teeth coated with black sordes. Pains about epigastric and right hypochondriac regions. Diminution of hepatic dulness: increased area of splenic dulness. Obstinate constipation: purgatives bring away hard clay-coloured stools; at later period, evacuations black from presence of blood. Difficult micturition: urine loaded with bile pigment, perhaps albuminous, and containing tyrosine and leucine.—Increase of jaundice. Bedsores, if life be prolonged beyond eight or nine days. Hæmorrhages from nose, stomach, bowels, bronchi &c.

Death usually occurs within a week from commencement of confirmed stage: sometimes within eighteen or twenty-four hours.

Treatment. Empirical and probably useless. Usual remedies:—Drastic purgatives; then mineral acids, with diffusible stimulants as prostration increases. Large doses of quinine and mineral acids. Ice. Cold drinks.

2. Chronic Atrophy of Liver.—This disease is in no way connected with acute atrophy. It results from all those conditions which tend to arrest the capillary circulation through the gland, and hence to lessen its nutrition.

Symptoms. Developed slowly and insidiously. Imperfect digestion: flatulence, diarrhœa alternating with constipation, pale-coloured stools. Dry sallow skin. Loss of flesh and strength. Anæmia: persistent wasting: perhaps dropsy: finally, there may be fatal exhaustion.

Treatment. Light nourishing food: avoidance of rich dishes, sugar, fermented drinks, coffee. Warm clothing. Over-fatigue to be guarded against.—Pepsine, 420. Purified ox bile with ammonia, 170. Quinine and ipecacuanha, 44, 384. Quinine and rhubarb, 385. Bark and mineral acids, 376. Harrogate waters, 466. Spa, 467. Kissingen, 493. Marienbad, 497.—*If dropsy set in:*—Squills, digitalis, and broom, 219. Buchu and acid tartrate of potash, 222. Nitre, juniper, and ether, 221. Tapping, to afford temporary relief.

HEPATIC CALCULI.—From Ἡπατικὸς, affecting the liver: *Calculus* (dimin. of calx), a small stone.—See *Gall-Stones.*

HEPATIC CANCER.—From Ἡπατικὸς, affecting the liver.—Every variety of cancer has been met with in the liver. Medullary more common than scirrhus.

Symptoms. In addition to general indications of malignant disease:—Enlargement of gland: loss of regular form: detection of uneven bulging prominences. Nodulous masses often give rise to partial peritonitis. Daily increasing loss of flesh and strength. Diffused abdominal pain and tenderness. Indigestion. Irritability and mental depression. Jaundice occurs more frequently than ascites: occasionally both present. Formation of gall-stones not uncommonly adds materially to the suffering.

Duration, except in scirrhus, short. Life seldom prolonged for two years, sometimes only for six months, from onset of symptoms.

Treatment. Opium. Belladonna. Conium. Ammonia and bark. Mineral or vegetable acids. Light nourishing diet.—See *Cancer.*

HEPATIC CONGESTION.—From Ἡπατικὸς, affecting the liver. Synon. *Hyperæmia of the Liver; Congestion of the Liver.*—Two varieties to be described:—

1. Passive Congestion.—Simplest form. Results from some obstruction to circulation through hepatic and portal veins. Occurs in valvular affections of heart; in morbid states of lungs impeding passage of blood through pulmonary artery; in diseases which diminish capacity of thoracic cavity; temporarily, from violent exercise &c. Leads to diminished excretion of bile: ducts become gorged with bile—*biliary congestion.*

Symptoms. Sense of constriction and weight in right hypochondrium. Often, slight jaundice, nausea dyspepsia: urine scanty,

high-coloured, perhaps contains bile-pigment, with traces of albumen: constipation and hæmorrhoids. Area of hepatic dulness found to be increased on percussion. Symptoms of cardiac or pulmonary disease &c.

Treatment. Sulphate and carbonate of magnesia, 141. Sulphate of soda and sulphuric acid, 143. Aloes, senna, and sulphate of magnesia, 150. Antimony and magnesia, 152. Nitric acid, senna, and taraxacum, 147. Ammonia and rhubarb, 161. Sulphates of magnesia and iron, 166. Leeches to anus. Harrogate waters, 466. Carlsbad, 496. Kissingen, 493. Marienbad, 497. Simple diet. Avoidance of stimulants.

2. Active Congestion. — Capillaries of hepatic artery chiefly affected. Produced by morbid matters in blood; suppression of habitual discharges, *i.e.* hæmorrhoidal, catamenial &c.; long residence in hot climates; deranged nervous influence; atony of bloodvessels from disease of coats; excessive eating and drinking, alcohol &c.; sedentary habits.

Symptoms. Fulness and sense of tightness about right hypochondrium. Slight enlargement of gland. Pains about right shoulder. Headache; loss of appetite; mental depression; nausea; irregularity of bowels, bilious stools &c. These symptoms soon pass off, unless the congestion be kept up by non-removal of the cause; in which case structural disease may ultimately result, with jaundice, perhaps suppurative fever, perhaps dropsy &c.

Treatment. Removal of cause. Horse exercise, walking &c. Simple diet: white fish, fresh vegetables, rice, weak tea &c. Aloes, gentian, and solution of potash, 148. Sulphate of soda and taraxacum, 144. Aloes, senna, and jalap, 145. Resin of podophyllum. Sulphate of manganese, 172. Nitro-hydrochloric acid, 378.

3. Apoplexy of Liver.—Extravasated masses of blood sometimes found in hepatic tissue, or beneath the capsule. Results of great congestion induced by morbid changes in the blood. Occur in scurvy, purpura, ichorhæmia, and especially in malarious fevers of tropical climates. Extravasations often numerous: vary in size from a pea to a hen's egg: or blood may be infiltrated through parenchyma, converting the tissue into a pulpy mass.

HEPATIC DEGENERATIONS. — From Ἡπατικὸς, affecting the liver: *Degenero*, to degenerate.—Three varieties:—

1. Fatty Degeneration of Liver. — Synon. *Hepar Adiposum; Fatty Liver.*—A great increase in the quantity of oil naturally contained in the hepatic cells; so that, on minute examination, the latter are found gorged with oil-globules, diminishing the normal granular matter and quite obscuring the nucleolated nuclei.

Of frequent occurrence in phthisis, and in fatty degeneration of other important organs. May affect those who live too freely, who lead indolent lives. Has been observed in constitutional syphilis; as well as after death from ichorhæmia, typhus, small-pox, erysipelas &c.

Symptoms. If cells be excessively loaded they may impede capillary circulation, and obstruct excretion of bile. Gastric catarrh, dyspepsia, constipation alternating with diarrhœa, pasty-looking complexion, anæmia, hæmorrhoids &c. may be present. Possibly, ascites; complete acholia; or fatal exhaustion.

Treatment. Regulation of diet: plainly cooked animal food, fresh ripe fruits. Avoidance of alcohol, sugar, amylaceous matters, and fat. Daily exercise. Sulphate of soda and taraxacum, 144. Alkaline aperients, 148. Rhubarb and magnesia, 165. Hydrochlorate of ammonia, 60. Iodide of potassium, 31. Harrogate waters, 466. Carlsbad, 496. Kissingen, 493. Selters, 487.

2. Amyloid Degeneration. — From *Amylum*, starch. Synon. *Waxy, Albuminous, Lardaceous*, or *Scrofulous Liver*.—May co-exist with fatty liver, cirrhotic induration, syphilitic cicatrices and gummatous nodules, or be alone present. The glandular structure is gradually converted into a dense material: hence, destruction of hepatic cells with abolition of their functions. After death, liver found increased in weight and size: may average 8 or 9 lbs. avoir. instead of 3 or 4 lbs. Substance tough, resembling yellow wax: cut surface presents only faint traces of lobules.

Chief predisposing causes,—Caries and necrosis in strumous subjects; constitutional syphilis; tubercular disease of lungs and intestines; and perhaps intermittent fever.

Symptoms. Enlargement of liver. Sense of fulness in right hypochondrium. Enlargement of spleen. Loss of appetite. Dyspepsia: flatulence, attacks of diarrhœa with pale stools, nausea. Albuminuria, from co-existence of same disease in kidneys. Very rarely, acute pain; jaundice; ascites. Disease slowly but steadily advances to fatal termination.

Treatment. Unsatisfactory. Attempts to be made to relieve the cause, and prominent symptoms. Iodide of potassium. Iodide of iron. Ferruginous tonics. Warm or tepid sea-water baths. Digestible food.—See *Amyloid Degeneration*.

3. Pigment Liver.—Synon. *Melanæmic Liver*.—After death from severe intermittent, remittent, or continued fevers, the liver is sometimes found to present a blackish or chocolate colour. This is due to accumulation of pigment matter in vascular apparatus of the gland (Frerichs). The loading of the hepatic capillaries with this melanotic matter, leads to their destruction, and consequent atrophy of the gland. The resulting gastric catarrh, diarrhœa, and severe cerebral symptoms or ascites, are incurable.

HEPATIC HYPERTROPHY. — From Ἡπατικὸς, affecting the liver: Ὑπὲρ, in excess; τρέφω, to nourish.—Hypertrophy of liver characterised by an increase in the secreting cells, causing general enlargement of the gland. Hepatic cells may be increased in size, or multiplied in number.

Arises from long-continued congestion, such as occurs in residents of tropical climates or of malarious districts. Sometimes found in

leucocythemia, phthisis, dysentery, saccharine diabetes &c. Partial hypertrophy may be of a compensatory nature; *i.e.*, a portion of gland having been rendered useless by disease, the healthy part has its cells enlarged so as to prevent systemic derangement.

HEPATIC TUMOURS.—From Ἡπατικὸς, affecting the liver: *Tumor* (tumeo), a tumour.—The most significant new formations having their seat in the liver are the hydatid tumours and cancerous infiltrations (see *Hepatic Cancer*). There are, however, two or three other growths which may be met with.

1. Cystic Tumours.—Encysted knotty tumours, containing a cheese-like substance, are found in the glandular substance, varying in size from that of a large pea to a small potato. They have their origin in inflammation of mucous lining of hepatic ducts. Steatomatous contents composed of irregular granules, free oil globules, and occasionally plates of cholesterine.

Simple serous cysts, with clear watery contents, are sometimes scattered through the liver. Seldom larger than small beans.

Sacculated cysts, containing a glairy fluid, may be met with. Very rarely, the liver has been crowded with such cavities.

2. Cavernous Tumours.—Commonly found on upper surface of the gland, especially in bodies of aged persons. They are developed in the hypertrophied connective tissue. On the surface, they look like dark blue coloured spaces, varying in size from that of a pea to a fowl's egg: on cutting into them, a tissue is found resembling that of the corpora cavernosa of penis, containing dark blood.

3. Tuberculosis.—Tubercular deposits very rare in liver: probably never occur primarily, but always in connexion with far-advanced tuberculosis of other organs—especially of abdominal viscera. Deposit takes place over all parts of the gland, in shape of semi-transparent miliary granules, or as yellow adipose deposits. Patient usually succumbs to constitutional affection before stage of softening sets in.

4. Hydatid Tumours.—From Ὑδατὶς, a vesicle. Synon. *Echinococci of the Liver.*—Hydatid tumours occur in the liver more frequently than in other organs. They are occasionally met with, however, in subperitoneal areolar tissue, spleen, omentum, muscles of heart, brain, kidneys, lungs, ovaries, and bones—particularly the tibia.

These growths consist of a sac formed by condensation of surrounding tissue, lined by a thin bladder or cyst, and filled with a limpid salt fluid; floating in which are usually found numerous small bladders, which contain the entozoon known as the echinococcus (Ἐχῖνος, a hedgehog, and κόκκος, a berry). Hence, the term "echinococcus cysts" is sometimes used synonymously with "hydatids." The echinococci are immature tapeworms — the scolices or embryos of the Tænia echinococcus which infests the dog and wolf.

Symptoms. A hydatid tumour in the liver grows slowly. May give rise to little inconvenience beyond a sensation of weight. When large, it is easily detected: volume of liver increased. Occasionally,

fluctuation : in exceptional cases, a peculiar vibratory sound—hydatid fremitus. If the cyst inflame, violent pains : sometimes compression of portal vein or vena cava, causing ascites and œdema of legs.—Cyst may burst into peritoneum, causing fatal peritonitis ; or into base of lung, hydatids and puriform matter being expectorated; or into hepatic duct, whence contents may pass through common duct into duodenum. More fortunately it sometimes bursts directly into intestines, or through abdominal wall. May also undergo spontaneous cure, without rupture ; by secretion of thick putty-like matter within the sac.

Treatment. Iodide of potassium, 31. Calomel. Common salt. Sulphur baths. Electricity. Removal of fluid contents by tapping. Injection of solution of iodine, or diluted alcohol, after tapping. Insertion of drainage-tube after tapping. Careful incision, provided cyst be adherent to integuments.

HEPATITIS.—From Ἧπαρ, the liver; terminal *-itis*. Inflammation of the liver has to be considered under five heads :—(1) Hepatitis, or inflammation of peritoneal investment, or of substance of the gland, or of both combined. (2) Cirrhosis, or that slow form of inflammatory action which affects the areolar or connective tissue. (3) Syphilitic hepatitis. (4) Inflammation of the bloodvessels. (5) Inflammation of biliary ducts and gall-bladder.

1. Hepatitis.—Synon. *Suppurative Inflammation of Liver.*—Occasionally, only the coats of liver and Glisson's capsule become inflamed (*Peri-Hepatitis*). More commonly, substance of gland attacked. The morbid action may be diffused over whole organ (*Hepatitis diffusa parenchymatosa*) ; and it may lead to softening and acute atrophy, or to induration. Generally, inflammation more circumscribed (*Hepatitis vera circumscripta, suppuratoria*) ; and then abscess is a frequent result.

Symptoms. Tenderness over gland: most marked if peritoneal investment be affected. High fever, sometimes assuming a low form. Fulness of right hypochondrium : increased dulness on percussion. Pain increased by pressure, cough, deep inspirations : inability to lie on left side. Yellow tinge of conjunctiva : rarely jaundice. Dyspnœa, cough, vomiting, headache, hiccup. Pains in right clavicle and shoulder : probably, when left lobe of liver suffers, pains in left shoulder.

Formation of abscess signalised by chills, or distinct rigors. Hectic fever. Gastric disturbance. Pain and great tenderness. Tension of abdominal muscles on palpation. Feeling of weight about liver. Emaciation. Prostration. Diarrhœa or dysentery.

Treatment. Sulphate of soda and taraxacum, 144. Aloes, gentian, and potash, 148. Small doses of blue pill and ipecacuanha. Acid tartrate of potash. Salines, 348. Opium. Opium and ipecacuanha, 324. Opium and belladonna, 344. Ipecacuanha, morphia, and astringents where there is dysentery. Fomentations. Compress with dilute nitro-hydrochloric acid and water.—Restricted diet. Indian sarsaparilla and barley water drink, 20. Acid tartrate of potash drink, 356. Complete rest in bed.

If suppuration occur:—Bark and ammonia, 371. Mineral acids and bark, 376. Nitro-hydrochloric acid, 378. Quinine, 379. Quinine and steel, 380. Opium. Wine. Nourishing food.—If surface of abscess have become adherent to abdominal parietes, puncture with trocar and canula, after exploratory puncture with grooved needle. Some authorities prefer allowing abscess to burst spontaneously.

Remedies sometimes employed:—Tartarated antimony. Calomel. Iodide of potassium. Colchicum. Digitalis. Bloodletting. Leeches. Blisters. Issues.

2. Cirrhosis.—From Κιρρὸς, yellowish: because on slicing the liver it presents the greyish-yellow colour of impure bees-wax. Synon. *Interstitial Hepatitis; Granular Induration of Liver; Hob-nailed Liver; Gin-drinker's Liver.*—Chronic inflammation and hypertrophy of areolar tissue pervading and covering liver. The gland becomes abnormally firm, and subsequently contracted; the contraction of thickened connective tissue causing the capsule to be drawn in, so that the surface of the liver has a "hob-nailed" appearance. As it is a common result of spirit-drinking, it is sometimes known as *Gin-drinker's liver.*

Symptoms. Few and obscure until effused fibrin begins to interfere with flow of portal blood, and secretion and escape of bile. Slight enlargement of gland: as fibrous tissue contracts and lobules atrophy, the gland diminishes in size. Hypertrophy of spleen. Pain in right hypochondrium: indigestion, flatulence, constipation: occasional feverishness: dry and rough skin: unhealthy sallow look. After an interval,—debility with loss of flesh. An increasing contraction of effused lymph obstructs portal circulation,—ascites. Jaundice. Dilatation of veins in abdominal walls. Hæmorrhage into stomach and intestines. Rarely, an attack of hæmorrhage has constituted one of earliest symptoms, and caused death before disease has been suspected. Increase of dropsical effusion. Death from exhaustion; or from some intercurrent attack of pneumonia, peritonitis, jaundice and toxæmia, or diarrhœa.

Treatment. *At commencement:*—Disuse of all alcoholic drinks, coffee, curry and highly seasoned dishes. Plain animal food. Sulphate of magnesia, 141. Sulphate of soda, 143. Resin of podophyllum, 160. Acid tartrate of potash and taraxacum, 194. Factitious Carlsbad waters, 181. Waters of Carlsbad, 496. Marienbad, 497. Kreuznach, 484. Iodide of potassium, 31. Quinine and iodide of iron, 382.

When degeneration of hepatic cells has far advanced:—Nitro-hydrochloric acid, 378. Pepsine and nux vomica, 420. Rhubarb and bitters, 370. Inunction of hepatic region with compound iodine ointment: red iodide of mercury ointment.

For checking hæmorrhage:—Gallic acid, 103. Turpentine, 50, 102. Cinnamon and nitric acid, 104. Aromatic sulphuric acid and opium, 100. Cold drinks: ice. Bladder of ice over abdomen.

For ascites:—Squills, digitalis, and juice or decoction of broom, 219. Buchu and cream of tartar, 222. Nitre, juniper, and nitrous

ether, 221. Solution of potash and digitalis, 220. Benzoate of ammonia, 215. Elaterium, 157. Calomel and jalap, 159. Morphia, chloroform, and Indian hemp, 317. Tapping. Nourishing food: milk, raw eggs, stimulants.

3. Syphilitic Hepatitis.—Generally accompanied with other tertiary symptoms of venereal infection. Three varieties:—(1) Simple interstitial hepatitis and peri-hepatitis. (2) Hepatitis gummosa; in which white depressions, like cicatrices, are found to contain yellowish nodules of a rounded form and dried appearance, varying in size from a linseed to a bean. And (3) as waxy, amyloid, or lardaceous degeneration.—All three forms may coexist, or either may be present independently of the others (Frerichs).

Symptoms. Those produced by first and second varieties seldom very striking: while one portion of gland becomes unfit for its functions, the cells of healthy part get hypertrophied. Syphilitic cachexia. Enlargement of spleen. Sometimes albuminuria.

Treatment. Iodide of potassium, 31. Corrosive sublimate, 27. Green iodide of mercury, 53. Red iodide of mercury, 54. Mercurial vapour bath, 131. Nourishing food. Rest from mental and bodily labour: country air. Where there is renal disease,—iodide of iron, 32. —See *Hepatic Degenerations.*

4. Diseases of Bloodvessels.—*Hepatic artery and its branches* may be involved in liver disease,—in cirrhosis, cancer, tubercle &c.; or canal of artery may become obstructed; or there may be atheroma of the coats, or aneurismal dilatation.

Portal vein may have its channel obstructed by coagula.—Sometimes ruptured, from fatty degeneration of coats.—Inflammation, ulceration, or suppuration of viscera in which the roots of this vein have their origin, may produce suppurative disease of vein itself. Chief features of suppurative portal phlebitis are headache, violent fever, great prostration, rigors, profuse sweating, pains in epigastrium or right hypochondrium, bilious diarrhœa, jaundice, enlargement of liver and spleen; followed frequently by symptoms of peritonitis, occasionally by metastatic purulent deposits in liver or lungs or joints; and terminating in fatal exhaustion or coma. Remedies of little avail: quinine and opium to subdue rigors and pain. Milk and raw eggs. Solution of beef, 2. Demulcent drinks, 19.

Hepatic veins usually found enlarged after death from valvular disease of heart.—Rarely the seat of adhesive inflammation.—Suppurative hepatic phlebitis more common, as a consequence of abscess of liver. Blood-poisoning generally ensues.

5. Inflammation of Biliary Passages.—The biliary ducts and gall-bladder may be attacked by different forms of inflammation:—(1) *Catarrhal* inflammation, in which secretion of mucus is increased and soon becomes viscid or muco-purulent. Sometimes the cystic or common duct becomes temporarily obstructed by a firm plug of mucus. The morbid action generally has its origin in catarrh of stomach and duodenum. (2) In *exudative* or *plastic* inflammation there is either a firm fibrinous or a croupal product. This forms casts

of the tubes, blocking them up and leading to dilatation. (3) *Suppurative* inflammation leads to formation of pus and a thick kind of mucus tinged with bile. Ulceration may occur: ulceration of gall-bladder often found, together with gall-stones: may be induced by decomposing bile, where there are no calculi.

Symptoms. Very variable in severity. Gall-bladder, cystic, and common ducts more obnoxious to inflammation than hepatic ducts, because the former are more likely to be irritated by gall-stones and unhealthy bile.—In catarrhal inflammation, there is slight tenderness, tightness about epigastric and right hypochondriac regions, nausea, mild fever, and constipation. Jaundice, if viscid mucus choke up many of the ducts; ending with salutary diarrhœa as pent-up bile finds its way into duodenum.—Undue retention of bile in gall-bladder, from any cause, may lead to decomposition: hence irritation and inflammation, perhaps ending in suppuration and ulceration and even perforation.

Dilatation of biliary passages may occur, from their origin in plexiform network in which hepatic cells lie, to termination of common excretory duct of liver and gall-bladder in duodenum. Generally, expansion only partial. In any case, it may arise from habitual accumulation of inspissated bile; compression of ducts by tumours or by disease of the parenchyma; inflammatory swelling of mucous lining diminishing calibre of tubes, and so leading to retention of their secretions as well as of bile; and from obstruction by calculi, catarrhal or croupy exudations &c. Owing to obstruction of duodenal orifice, the ductus communis choledochus has become as large as small intestine. When the gall-bladder cannot get rid of its contents in consequence of occlusion of cystic duct, the residuary bile may be absorbed; but if lining membrane continue to secrete mucus, dropsy of cyst must result. If obstructing substance act like a valve, permitting ingress of bile but preventing egress, a large pear-shaped or globular tumour may form, containing some pints of fluid. Rupture of bladder has been prevented by tapping: can be safely performed provided there are adhesions to abdominal wall.

Treatment. Active remedies have probably only an injurious effect. Recovery may be aided by a restricted diet; warm baths; simple aperients if there be constipation; astringents if there be undue diarrhœa. Fomentations and sedatives to relieve pain: simple diluents or salines for fever and thirst: digestible restorative food, with ammonia and bark, if there be exhaustion.

Where catarrhal inflammation becomes chronic, and customary discharge of bile does not occur,—Nitro-hydrochloric acid, 378. Benzoic acid, 49. Benzoate of ammonia, 215. Hydrochlorate of ammonia, 60. Waters of Carlsbad, 496. Marienbad, 497. Selters, 489. Kissingen, 493.

Remedies sometimes employed:—Leeches to anus: to hepatic region. Blisters. Issues. Calomel. Blue pill. Taraxacum. Resin of podophyllum. Tartarated antimony. Iodine. Iodide of potassium. Iodide of zinc. Nitric acid. Purified ox bile. Chlorine baths. Nitro-hydrochloric acid baths. Turkish baths.

HERNIA.—From Ἔρνος, a branch or sprout; because in this affection the whole or a part of an organ shoots out from its natural position. Synon. *Rupture.*—A tumour formed by the protrusion of more or less of a viscus from its normal site. Thus, there may be hernia of the brain, cornea, mucous lining of windpipe through rings of trachea, lung, liver, spleen, bladder, uterus, ovaries, omentum, and intestine. When, however, the term "hernia" stands alone it signifies a protrusion of omentum or intestine through some abnormal opening in abdominal walls; in which sense it is here considered. The viscera most liable to protrusion are,—small intestines, omentum, and arch of colon. The most frequent sites are those points where muscular and tendinous structures are weakened to allow of exit of spermatic cord in male and round ligament in female, or of large vessels to lower extremity,—inguinal and crural canals.

A hernia is composed of a *Sac* and its *Contents.* The sac consists of the parietal layer of peritoneum: is always present save in herniæ following penetrating wounds, in some cases of congenital umbilical hernia, and in cases where viscus protruded is only partially covered by peritoneum (as the cæcum); and it has a *neck* which is often the seat of constriction in strangulated herniæ, and a *body* which is usually pyriform or globular. When the sac only contains intestine, the rupture is termed an *Enterocele;* when only omentum, an *Epiplocele;* when both, an *Entero-epiplocele.*

A hernia is at first *Reducible,*—the contents of the sac can generally be pushed back into abdominal cavity, though the sac itself rapidly becomes adherent to areolar tissue. After reduction, protrusion is to be restrained by a proper truss,—a pad kept over the seat of protrusion by a steel spring round the body. Amongst the best trusses are those of Mr. John Wood; contrived so as to exert flat and level pressure at sides of hernial opening instead of in the axis. Most other instruments have convex pads which exert pressure chiefly on centre of hernial aperture, and must therefore increase its size. Bigg's convolute spring truss sometimes very useful in oblique inguinal rupture. A *radical* cure may be desirable: operations for effecting this, either aim at invaginating the skin and superficial fascia and sac, so as to plug the opening through which the hernia passes (Wützer's); or, after invaginating sac and fascia, the sides of the aperture are brought together by subcutaneous stitches, and held so until sufficient adhesive inflammation has been set up (John Wood's).

Irreducible hernia,—protrusion generally large, of long standing, and often consisting of thickened omentum and of intestine and mesentery. If left alone, there is a tendency to gradual increase: to prevent this, if hernia be not too large, it may be supported and protected by a truss with a large concave pad; if of great size, a suspensory bandage ought to be worn. Inflammation, simulating strangulation, sometimes occurs in these herniæ: the treatment must consist in use of opium, fomentations, and perfect rest.

Incarcerated hernia is an irreducible hernia which has become temporarily obstructed, from accumulated flatus or some undigested

matters in an angle of the gut. The constipation is to be removed by purgative enemata, 189, 191: ice may be applied: the taxis to be used to empty incarcerated gut of its contents.

Strangulated hernia is that form in which the portion of protruded omentum or intestine is so tightly constricted that it cannot be reduced: consequently the passage of fæces is arrested, and gangrene soon occurs if relief be not afforded. The symptoms are those of obstruction of the bowels. The treatment consists in recourse to the *taxis*,—the attempt to return the protrusion by manipulation, without undue force. This may be assisted by placing the patient in a hot bath; by inducing anæsthesia with chloroform; by a full dose of opium; by application of bladder of ice; or by inverting the patient, so that the gut may be emptied of its fluid contents. Some practitioners relax the muscular contraction by bleeding, nauseating doses of antimony or tobacco, large enemata to empty the lower bowel &c. If the symptoms continue after reduction, they may be due to,—the hernia having been pushed back *en masse*, sac and all; or there may have been a double strangulation, the taxis having failed to relieve the stricture within the sac; or the constriction may have been so great that gangrene has been set up. But the taxis failing to effect reduction, one of two operations becomes necessary without delay:—an incision is made over the neck of the tumour, the sac exposed and opened, and the stricture divided from within; or the sac is to be left entire, the stricture being divided outside.

The special herniæ are:—(1) *Oblique inguinal hernia*, in which the protrusion originates at internal abdominal ring, traverses entire length of inguinal canal, and usually passes out at external ring.—(2) *Direct inguinal hernia* passes through a triangular space on inner side of epigastric vessels, bursting through or pushing before it the conjoined tendon of internal oblique and transversalis muscles, and presenting at external ring gradually makes its way into scrotum or labium.—(3) *Congenital hernia* descends inside the tunica vaginalis, which forms its sac. Always oblique, following the course of spermatic cord. The tendency to the protrusion is congenital, but the actual hernia may not occur for some years after birth.—(4) *Femoral* or *crural hernia* is that which escapes under Poupart's ligament through the crural ring, and enters the sheath of the vessels internal to the femoral vein. After passing through the saphenic opening of the fascia lata it turns up over the falciform process, instead of descending on the thigh.—(5) *Umbilical hernia* protrudes through the umbilical aperture. Not uncommon in infants, and in women who have borne many children.—(6) *Ventral herniæ* are such as protrude through any part of the abdominal parietes, except the inguinal or femoral or umbilical apertures. Most frequent through the linea alba, lineæ semilunares &c.—(7) *Obturator hernia* passes through the opening in obturator ligament which gives exit to the artery and nerve. Very rare, and very difficult to diagnose during life.—(8) *Ischiatic hernia* escapes through the sciatic notch.—(9) *Perineal hernia* descends between rectum and bladder, forming a protrusion in perinæum.—(10) *Vaginal hernia* gives rise to a tumour which pro-

trudes through the posterior or upper wall of vagina.—(11) *Labial hernia* presents a tumour in one of the labia and along the side of vagina.—(12) *Diaphragmatic hernia* results from a wound or from congenital deficiency of a portion of the diaphragm. The stomach or transverse colon, with a large portion of omentum, may escape through such an opening and form a large tumour in thoracic cavity.

HERPES.—From Ἑρπω, to creep. Synon. *Tetter.*—A transient non-contagious skin disease, consisting of clusters of vesicles upon inflamed patches of irregular size and form. Eruption runs a definite course; with one exception, rarely continues for more than three or four days; is not usually severe; and leaves no scar.

Varieties. *Herpes labialis*, often forms on upper lip during a cold.—*Herpes preputialis*, occurs on foreskin: vesicles run into each other, producing an excoriation covered with a scab.—*Herpes zoster*, *zona*, or *shingles*, sometimes very troublesome: frequently attended with severe stinging pain. Inflamed patches with their clustered vesicles, arranged in form of a band, encircling half the circumference of the body. May resist treatment for a few weeks.

Treatment. Attention to bowels. Regulation of diet. Vesicles may be pricked, and sponged with warm water or dilute solution of subacetate of lead. Oxide of zinc, or subacetate of lead ointment. Painting with belladonna or aconite liniment, where there is pain. In obstinate forms, quinine and arsenic, 52.

HICCOUGH.—Synon. *Singultus; Hiccup.*—A short convulsive and noisy inspiration, followed immediately by expiration. It is due to the sudden and involuntary and momentary contraction of the diaphragm, with the simultaneous narrowing of the glottis. Frequently a warning of great danger in severe diseases: often a symptom of irritation or inflammation of the digestive organs: occasionally a product of hysteria: sometimes a mild idiopathic affection. Most common during infancy and old age. The convulsive inspirations produce pain about the præcordia. Paroxysms of hiccough recurring at short intervals, and continuing for some days, are occasionally the cause of great exhaustion.

Treatment. *Idiopathic:*—In mild cases hiccough may perhaps be checked by taking a set of deep inspirations and then holding the breath as long as possible, so as to keep the diaphragm contracted. A belt firmly applied round epigastrium. Use of sternutatories to provoke prolonged sneezing.—In severe forms,—Ammonia. Musk. Peppermint. Camphor. Ether. Mulled Port wine, or hot brandy and water with spice. Chlorcform on sugar. Aconite. Belladonna. Inhalation of chloroform or ether. Opium. Henbane. Hydrocyanic acid. Ice, or iced water. Blisters; sinapisms; turpentine stupes; dry cupping; wet compress; belladonna, aconite, chloroform, or opium liniment; either agent to be applied to back and sides, in neighbourhood of attachments of diaphragm.—*Dyspeptic:*—Emetics. Mild warm aperients, or enemata of castor oil &c. Draughts of ammonia,

bicarbonate of potash, and peppermint water. White bismuth. Creasote. Ipecacuanha. Sinapisms. — *Hysterical:* — Assafœtida. Sumbul. Musk. Valerianate of ammonia, quinine, iron, or zinc. Ferruginous tonics. Shower baths. Galvanism.—*Intermittent:*— Quinine. Arsenic.—*Infantile:*—Dill water (aqua anethi). A few drops of brandy in hot sugared water. Warm bath. Attention to quantity and quality of milk or other food.

HOOPING-COUGH.—Synon. *Pertussis; Tussis Convulsiva; Bronchocephalitis; Chincough.*—An infectious disease, especially of childhood; rarely occurring more than once in same individual. Attended with slight fever and vomiting; and accompanied at first by catarrh, and subsequently by a peculiar cough which occurs in paroxysms at uncertain intervals.—Duration, from two or three weeks to as many months.—Probably due to some poison affecting pneumogastric nerve. Sometimes epidemic.

Symptoms. After a latent period of perhaps six days, a simple febrile stage of eight or ten or twenty days' duration: sometimes accompanied, but usually followed, by violent paroxysms of coughing. Restlessness from coryza, heat of skin, oppression of chest. As fever remits, the cough assumes its peculiar shrill sound or hoop. Child soon learns when each paroxysm is commencing, and is frightened. Series of coughs or expiratory efforts very powerful: suffocation seems about to set in, when relief is afforded by a long-protracted inspiratory act, the rush of air through glottis causing characteristic crowing or hooping. Directly after fit, patient regains courage; soon appears well. If paroxysm end in vomiting, there is a craving for food immediately afterwards. There may be two or three paroxysms in a day, or as many in an hour.

Complications:—May co-exist with measles, small-pox &c. With bronchitis, pneumonia, disordered bowels, some head affection.—Perhaps the urine occasionally contains sugar—pertussal glucosuria.—When cough is very severe it is sometimes accompanied with hæmorrhage from nose or mouth; or from ears, with laceration of membrane of tympanum. Ecchymosis of conjunctivæ, common.—May prove fatal by causing pneumonia. Convulsions. Hydrocephalus. More frequently, by catarrhal inflammation of bronchi, with collapse of a portion of the lung.

Treatment. *Mild cases:*—Warm clothing: flannel or chamois leather jackets next the skin. Light nourishing food. Mucilaginous drinks. Confinement in-doors. Friction of spine, night and morning, with belladonna and soap liniment, 281.

More severe forms:—Ipecacuan, as an emetic, if bronchi are loaded with mucus, 231. Ammonia, ipecacuan, and senega, 235. Sulphate of zinc and belladonna, 92. Ammonia, ether, belladonna, and hydrocyanic acid, 86. Bromide of ammonium, 37. Spirit of chloroform. Hydrocyanic acid. Nitric acid, 91. Tincture of aconite (min. j—iij). Opium, 333. Hydrochlorate of ammonia. Attention to bowels. Belladonna liniment to spine, 281. Confinement to one room: temperature 68° F. Flannel clothing. Nutritious but easily digested

food: milk, cream, fish, eggs.—*When chronic:*—Saccharated carbonate of iron. Cod liver oil. Removal to sea-side.

Remedies sometimes recommended:—Tartarated antimony. Ipecacuan. Alum. Arsenic. Assafœtida. Camphor. Coffee. Colchicum. Peroxide of hydrogen. Musk. Lobelia inflata. Saccharated carbonate of iron. Quinine. Oxide of zinc. Sulphur. Sponging fauces and glottis with solution of nitrate of silver (gr. 20 to the fl. oz.). Leeches to spine. Sinapisms to spine. Tartarated antimony ointment. Cold shower bath, in chronic stage.

HOUSEMAID'S KNEE.—Enlargement of bursa over patella, the result of pressure and inflammation from kneeling. If the inflammation be acute,—Leeches, poultices, evaporating lotions, and rest will be needed. In chronic cases,—Iodine liniment, blisters, ammoniac and mercury plaster, diluted red iodide of mercury ointment &c. Wire setons. Tapping with trocar, followed by seton: the wires or threads to be left in until free suppuration has been set up. If there be sloughing, a free incision must be made through anterior part of bursa.

HYDRÆMIA.—From Ὑδωρ, water; αἷμα, blood. Watery blood. —See *Anæmia.*

HYDROCELE AND HÆMATOCELE.—Hydrocele (from Ὑδωρ, water; κήλη, a tumour) consists of an accumulation of serum in the tunica vaginalis, or in the cord. Hæmatocele (Αἷμα, blood; κήλη) is an extravasation of blood into tunica vaginalis.

1. Hydrocele of Tunica Vaginalis.—Synon. *Hydrops Scroti; Hydrorchis.*—May result from injuries, testitis, and many causes.

Symptoms. The scrotum gradually gets distended with serum, until it forms a smooth and pear-shaped and fluctuating and translucent swelling. The testicle may be felt near the lower and back part: the spermatic cord to be distinguished free at neck of tumour. The fluid consists of pale yellow serum: average quantity ten or twelve ounces.—In *congenital* hydrocele the communication between the tunica vaginalis and peritoneal cavity has not been obliterated. Apt to be complicated with congenital hernia.—In *encysted* hydrocele there are one or more cysts filled with serum, connected with the testis or epididymis.

Treatment. *Palliative:*—Withdrawal of fluid by trocar. Punctures with a grooved needle: fluid escapes from tunica vaginalis into scrotal areolar tissue, whence it is absorbed. Painting with iodine. Friction with diluted red iodide of mercury ointment. *Radical cure:*—Tapping, with injection of tincture of iodine (fl. drm. j. to water iij), allowing the injection to remain. A moderate amount of inflammation is set up, which does not subside for two or three days. This plan failing, a seton may be passed through the sac,—two or three threads, or a fine iron wire.—In *congenital* hydrocele a truss to be worn, so as by pressure to close vaginal process. Iodine to scrotum. Punctures with grooved needle. Irritating injections inappropriate.—

In *encysted* form, recourse is to be had to tapping with or without injection; or to seton.

2. Hydrocele of Cord.—Serum accumulates in areolar tissue of cord: not common. In some cases, the fluid is formed in a distinct cyst; which may either be a new formation, or a portion of unobliterated vaginal process of peritoneum. Where interference is needed, the best remedies are iodine to surface of enlargement. Acupuncture.

3. Hæmatocele.—Synon. *A Blood Tumour.*—May be due to injury: sometimes arises spontaneously. The tunica vaginalis gets distended with blood: perhaps to such an extent as to compress the testicle and produce atrophy. Rest, pressure, and cold lotions sometimes effect a cure. If there be much inflammation it may be necessary to turn out the clot by a free incision, and leave the cavity to granulate.

HYDROCEPHALOID DISEASE.—From Ὑδωρ, water; κεφαλή, the head; terminal *-ides*. Synon. *Spurious Hydrocephalus.*—The early appearances somewhat resemble those due to dropsy of the brain. A fatal error to mistake spurious for real hydrocephalus.

Symptoms. Weakly children the subjects of this affection. Heaviness of head. Drowsiness. Great languor. Unhealthy stools. Alarm at strangers and slight noises. Freaks of temper. Irregular breathing. Coolness of skin. Surface of fontanelle depressed, instead of raised as in dropsy.

Treatment. Pure milk. Strong beef tea, or finely pounded meat. Raw meat, 2. Port wine. Bark. Steel; especially chemical food, 405. Strict avoidance of active purgatives, diuretics, and poor diet.

HYDROCEPHALUS.—From Ὑδωρ, water; κεφαλή, the head. Synon. *Hydrocranium; Hydrops Capitis; Water on the Head; Dropsy of the Brain.*—Met with in children of various ages, as result of many circumstances. Often congenital, and associated with some cerebral malformation. Sometimes the precursor, sometimes result, of tubercular meningitis: in this case, often spoken of as *acute* hydrocephalus. When congenital, or when arising slowly from constitutional causes, it is termed *chronic* hydrocephalus.

Head attains a great size: the unossified sutures yield readily to pressure of fluid. One side may be larger than the other. Bones thin and transparent: meninges thickened. Serum often contained in lateral ventricles, which are perhaps expanded into one large cavity: occasionally collected in sac of arachnoid, compressing brain. Quantity of fluid varies from two or three ounces to as many pints. Essentially a disease of childhood, yet occasionally adults are affected.

Symptoms. Generally commence before infant is six months old: may exist from birth. Child takes food eagerly, but does not thrive: after a few weeks, extreme wasting. Appearance remarkable: emaciated body, small face, with a large globular cranium. Head droops helplessly on one side. Intelligence usually enfeebled.

Irritability and peevishness; morbid susceptibility to noise and light; liability to epileptic convulsions; great muscular weakness. Rolling movement of eyeball: perhaps strabismus, or amaurosis. Headache; nausea; constipation, with dark-coloured offensive stools. Grinding of teeth. Screams on awaking.

In second stage, more stupor; pallor; slow pulse; dilatation or contraction of pupils; picking of nose and lips. In favourable cases, lethargy and pallid hue and irritability gradually subside. Desire for food. Increase of muscular power. Diminution of emaciation. In unfavourable examples, excessive prostration and rapidity of pulse. Paralysis. Coma or convulsions ending in death.

Treatment. *Prophylactic:*—Infants with tendency to hydrocephalus to be reared so as to strengthen constitution as much as possible. Nourishing food: plenty of good milk. Salt water baths: friction of skin. Residence in pure air: sea side. Cod liver oil. Only the most gentle attempts at education.—*Curative:*—Rhubarb and magnesia. Syrup of senna. Castor oil. Mercury and chalk. Plain but nourishing food: pure milk. Cod liver oil. Glycerine. Iodide of potassium. Iodide of iron. Quinine. Bark and hypophosphite of lime or soda. Chlorate of potash. Sea air.

Compression of head and tapping have been strongly advocated. Compression best effected by bandaging, or by application of strips of soap plaster over whole of cranium, so as to make equal pressure on every part. Where there are no symptoms of active cerebral disease, pressure will probably do good.—Puncture is performed with a small trocar and canula at coronal suture, about an inch and a half from anterior fontanelle, so as to avoid longitudinal sinus. The fluid is to be evacuated slowly; as much as will flow may be allowed to come away; and gentle pressure must be kept up both during its escape and afterwards for some weeks. Only to be had recourse to when other means have failed. Has proved successful in very young children.

Remedies sometimes used:—Active purgatives. Leeches. Blisters. Calomel. Corrosive sublimate. Mercurial inunction. Crude mercury, with manna and squills. Tartarated antimony. Iodine. Colchicum. Digitalis. Liquor potassæ. Acetate of potash and squills. Cold affusion. Issue in neck, or on each shoulder.

HYDRONEPHROSIS.—From Ὑδωρ, water; νεφρὸς, the kidney. Synon. *Hydrorenal Distension; Dropsy of the Kidney.*—May result from obstruction of ureter by calculi, tubercular or malignant deposit, pressure of tumours &c. Kidney ultimately converted into a large pouch. Occasionally associated with suppuration of lining membrane of pelvis and calyces.

Symptoms. Sometimes altogether absent; especially if distension be not very great, and other kidney remain healthy. Hydronephrotic tumour found in loin, reaching forwards in abdomen: may be very large, with undulating feel and fluctuation, and tender to touch. Urine often natural in quantity: contains pus if there be associated pyelitis. Suppression of urine and uræmia where both glands are affected. Attacks of nephritic colic where there is a calculus.

Treatment. Rest. Diluents, to prevent concentration of urine. Gentle and oft-repeated manipulation, if there be an absence of tenderness, so as to force onwards obstructing body. Tapping.

HYDRO-PERICARDIUM.—From Ὑδωρ, water; περικάρδιον, the pericardium. Synon. *Hydropericarditis; Hydrops Pericardii; Hydrocardia; Dropsy of the Pericardium.*—See *Pericarditis.*

HYDROPHOBIA.—From Ὑδωρ, water; φοβέω, to dread. Synon. *Phobodypson; Rabies; Canine Madness.*—A disease caused by inoculation with the saliva of a rabid animal. Period of incubation varies from thirty days to many months. Death often occurs before the end of fourth day from commencement of symptoms.

Symptoms. Cramps of muscles of pharynx and thorax. Spasmodic action of diaphragm. Great dread of fluids. Recurrence of paroxysms of phrenzy on attempting to drink, or on exposure to a current of air. A flow of viscid saliva ("hydrophobic slaver"). Restlessness. Anxiety. Delirium. Exhaustion.

Treatment. *Prophylactic:*—Suction of wound. Excision of bite. Exposure of wound to stream of water. Nitrate of silver. Caustic potash. Actual cautery.

Curative:—Chloroform. Belladonna. Subcutaneous injections of liquor atropiæ. Hydrocyanic acid. Indian hemp. Wourali. Ice. Opium. Curara. Sulphite or hyposulphite of soda or magnesia. Vinegar. Vapour baths. Iodide of potassium. Laying open cicatrix and inducing suppuration. Division of nerves leading to wound. Application of ice to spine. Transfusion of blood. Copious enemata of plain water.

Remedies which have been employed:—Venesection to syncope. Cupping at nape of neck. Morphia injections into veins. Vaccination. Strychnia. Galvanism. Arsenic. Iron. Turpentine. Tobacco. Calomel. Injections of warm water into veins.

HYDRORACHIS.—From Ὑδωρ, water; ῥάχις, the spine. Synon. *Hydrorrhachia; Myelochysis; Hydrocele Spinalis; Dropsy of the Spine.*—The serous effusion is either within the spinal canal, or in a sac—spina bifida.

Usually congenital. When fluid has been present for some time, the pressure produces atrophy of cord.—See *Spina Bifida.*

HYDROTHORAX.—From Ὑδωρ, water; θώραξ, the chest. Synon. *Hydrops Thoracis; Pleurorrhœa Serosa; Dropsy of the Chest.*—An effusion of serum, or of serum mixed with blood, into the cavity of the pleura. A result of inflammation.—See *Pleurisy.*

HYPERÆMIA.—From Ὑπὲρ, in excess; αἷμα, blood. Synon. *Plethora; Polycæmia.*—An excess of blood; or, a superabundance of red corpuscles, producing superfluous richness, without any increase of the other components.

Symptoms. Lassitude. Indolence. Desire for sleep. Snoring

and dreaming. Vertigo. Hæmorrhage. Distended capillaries. Full, strong, resistent pulse. Turgidity of veins.

TREATMENT. Restricted diet: non-nutritious substances. Active exercise. Saline purgatives, 165, 167, 169. Bromide of ammonium, 37. Liquor potassæ, 73. Liquor arsenicalis. Mercury. Tartar emetic. Blood-letting. Issues. Mineral waters of Cheltenham, 461. Vichy, 479. Friedrichshall, 495.

Abstinence from:—Beer; wine; spirits; sugar; milk; fatty matters. Lessened amount of sleep.

HYPERMETROPIA.—From Ὑπὲρ, in excess; μέτρον, measure; and ὤψ, the eye. Synon. *Over-sight.*—That condition in which the refractive power of the eye is too low, or the optic axis (antero-posterior axis) too short. Consequently when the eye is in a state of rest, parallel rays are not united upon the retina, but behind it, and only convergent rays are brought to a focus upon the latter (Soelberg Wells).

SYMPTOMS. A sense of heat and fulness about the eyes on reading: the print appears indistinct, and the words seem to run into each other. Distant objects not seen clearly. Eyes look smaller and flatter than in health. Dull frontal headache.

Hypermetropia is one of the causes of asthenopia, as well as of convergent strabismus. Sometimes associated with presbyopia.

TREATMENT. Carefully-selected convex spectacles. Glasses increasing in power will have to be gradually used until the hypermetropia is completely neutralized.

HYPOCHONDRIASIS.—From Ὑποχονδριακὸς, affected in the viscera under the false ribs,—because such affection was regarded as the cause of melancholy. Synon. *Hallucinatio Hypochondriaca; Anathymiasis; Spleen; Vapors; English Malady; Low Spirits.*—May be said to consist prominently of an exaggerated egoism.

SYMPTOMS. Frequently functional derangement, occasionally structural disease, of certain organs, especially of those connected with functions of nutrition and generation. Hypochondriacs writhe under despotism of imaginary evils. They fulfil their duties naturally, at least for a time, but are morbidly sensitive of opinions and actions of others. Constantly dwelling on their miserable condition. Dread of internal disease, impotence, insanity, death. Want of resolution. Languid circulation. Decayed teeth. To same extent that hysteria is peculiar to female, is hypochondriasis to male sex.

TREATMENT. Purgatives injurious as a rule. Action of bowels to be maintained by exercise and proper diet. Narcotics and sedatives increase the mischief, and check secretions. If there be anæmia, quinine and steel, 379. Strychnia, or nux vomica, 387, 407, 408. Phosphate of zinc and bark, 414. Hypophosphite of soda, or lime, 419. Phosphate of iron, 405. Nitro-hydrochloric acid, 378. Sulphate of manganese. Cod liver oil. Assafœtida. Musk. Sumbul. Shower bath. Sea-bathing. Turkish bath. Nourishing food. Exercise in open air. Physical training. Gymnastics.

HYPOSPADIAS AND EPISPADIAS.—Hypospadias (Ὑπὸ, under; σπάζω, to draw from) is a congenital malformation, in which the urethra opens on under surface of penis instead of at extremity of the glans.—Epispadias (Ἐπὶ, upon; σπάζω) is that condition in which urethra terminates on dorsum of penis. Either state, when extensive, may call for an attempt at cure by a plastic operation. Actual cautery sometimes succeeds: galvanic cautery wire.

HYSTERIA.—From Ὑστέρα, the womb; owing to its supposed origin in this organ. Synon. *Hysteropathia; Asthma Uteri; Vapores Uterini; Passio Hysterica; Hysterics.*—A nervous disorder which occurs in paroxysms, or simulates other diseases. Attacks accompanied with an abundant secretion of urine of low specific gravity: frequently with a sense as of a ball rising in the throat (globus hystericus). Occasionally convulsions. Women from the age of puberty to the decline of menstruation most liable to it; though occasionally men are the subjects of it.

Symptoms. Those characterising *hysteric paroxysm* or *fit* are:—Convulsive movements of trunk and limbs; beating of breasts with hands clenched, or tearing of hair or clothes; shrieks and screams, violent agitation; globus hystericus, or feeling of suffocation; attack ending with convulsive outbreaks of crying or laughter, and sometimes with hiccough. Occasionally, patient falls to ground insensible and exhausted; soon recovering, tired and crying. Perhaps urine is discharged involuntarily during the excitement.

Hysterical paraplegia, or hemiplegia, sometimes occurs. There may be hyperæsthesia, or increased sensibility of various tissues, perhaps leading to erroneous suspicions of pleurisy, spinal disease, metritis, or ovaritis. The opposite condition—anæsthesia, or loss of sensibility—not uncommon; sometimes lasting for many months, affecting left side more than right, and being so deep that pins and needles may be thrust into substance of affected muscles without causing pain. Appetite for food increased, or diminished, or depraved so that most extraordinary substances are eaten.

Hysteria simulates almost all diseases. The favourite are:—Suppression of urine, stone in bladder, pleurisy, consumption, complete loss of voice, paralysis, epilepsy, and affections of spine or joints. Hysterical cough, hiccough, or vomiting may prove very obstinate. Peculiar expression of countenance: fulness of upper lip, drooping of upper eyelids. Questions answered abruptly. Pains increased by pretended pressure. Catamenia often irregular: more or less profuse leucorrhœa.—Sufferings not always feigned. Perhaps generally, patient believes she is grievously affected. Even where pins are thrust under skin, stones placed in vagina, or food refused unless it can be obtained surreptitiously, the patient is diseased. She resorts to these practices to increase sympathy of friends.

Treatment. *During paroxysm:*—Loosen dress. Prevent self-injury. Surround body with cool air. Ammonia to nostrils. If it can be swallowed, a draught containing a drachm of ammoniated

tincture of valerian. If apparent insensibility continues, cold water douche over head and face.

In other forms, or during intervals between fits:—Aloetic aperients, 156, 393, 404. Quinine and steel, 380. Steel and glycerine, 392. Strychnia and steel, 408. Zinc and nux vomica, 409. Valerianate of zinc, or ammonia, or steel, or quinine, 410. Phosphate of iron, 405. Hypophosphite of soda, 419. Bromide of potassium, 42. Cod liver oil. Ammoniated tincture of valerian and bark. Compound pill of assafœtida. Nourishing food. Exercise in open air. Mental occupation. Shower baths. Sea bathing. Galvanism. Attention to uterine functions; checking catamenia if too abundant, promoting them if too scanty.—See *Bed Case.*

ICHORHÆMIA.—From Ἰχωρ, pus; αἷμα, blood. Synon. *Septicæmia; Pyæmia; Pyohæmia.*—A morbid condition of the blood, caused by the introduction of ichorous or putrid matters.

Symptoms. Shivering. Sweating. Rapid pulse. Epileptiform seizures. Sweet hay-like odour of the breath. Diarrhœa. Dysentery. Pleurisy. Pericarditis. Peritonitis. Erysipelas. Boils. Secondary abscesses. Rapid wasting. Feebleness. Death from prostration. In *chronic* cases the symptoms come on much more gradually, and are less intense.

Treatment. Calomel? Aperients. Vapour bath. Wet-sheet packing, 136. Acid sponging, 138. Perfect ventilation of sick room. Beer. Wine. Brandy. Beef solution, 2. Essence of beef, 3. Bark and ammonia, 371. Quinine, 379, 386. Sulphurous acid. Sulphite of magnesia, 48. Mineral acids, 376, 377. Opium. Cold drinks. Wenham Lake ice. Fomentations. Poultices. Incisions. Leeches? Bleeding?

ICHTHYOSIS.—From Ἰχθύς, a fish. Synon. *Xeroderma Ichthyoides; Fishskin Disease.*—A very rare, non-contagious, squamous skin disease. Characterised by development, on one or more parts of body, of thick and hard and dry imbricated scales of dirty grey colour. Unattended by heat or pain or itching. The scales or shagreen-like flakes give rise to most unsightly appearance.

Treatment. *Internally:*—Arsenic, 52. Donovan's triple solution, 51. Red iodide of mercury and arsenic, 55. Cod liver oil. Corrosive sublimate. Solution of potash in sarsaparilla.

Locally:—Warm baths. Alkaline baths. Vapour baths. Creasote lotions. Glycerine. Cod liver oil. Neat's foot oil. Friction with olive oil.

ICTERUS.—From Ἴκτερος, a yellow bird (probably the Loriot); because the colour of the plumage resembles that of the skin in jaundice. Synon. *Morbus Arcuatus; Morbus Regius; Cholæmia; Fellis Superfusio.*—See *Jaundice.*

IMPETIGO.—From *Impeto*, to attack; terminal *-igo.* Synon. *Psydracia; Crusted* or *Running Scall; Pustular* or *Humid Tetter.*—

A severe, sometimes contagious, inflammation of the skin; characterised by an eruption of small hemispheroidal, or flattened pustules, most frequently grouped in clusters, and forming thick yellowish scabs or incrustations. From beneath incrustations a discharge flows: crusts get thicker and larger, and fall off leaving raw surfaces.

Varieties. *Impetigo figurata* occurs generally on face, especially the cheeks. Attended with constitutional disturbance, and swelling of lymphatic glands. Pustules arranged in round or oval groups: as they burst and form scabs, heat and itching become intolerable. In children, impetiginous eruption sometimes covers head or face like a mask, and is called *crusta lactea:* sometimes due to pediculi. *Impetigo sparsa* characterised by scattered pustules; perhaps irregularly distributed over a limb, or even entire body.

Treatment. *Internally:*—Quinine, 379. Quinine and steel, 380. Arsenic, 52, 381. Red iodide of mercury and arsenic, 55. Cod liver oil. Steel and aloes, 154. Steel and sulphate of magnesia, 166. Potash and lime water, 73. Iodide of potassium. Colchicum. Plain nourishing food.

Locally:—Vapour or warm water baths. Conium and starch bath, 122. Hydrocyanic acid lotion, 263. Subacetate of lead and glycerine lotion, 264. Creasote lotion, 270. Oxide of zinc ointment. Use of linen dipped in melted suet. Lime liniment. Creasote and red oxide of mercury ointment, 301. Diluted citrine ointment, 305. Nitrate of silver. Iodine. Borax. Sulphur. Hairs to be cut close to scalp, if head or beard be attacked. Early puncture of pustules.

IMPOTENCE AND STERILITY.—The term *Impotence* (from *In*, neg.; *possum*, to be able) may be applied to every morbid state, in either sex, which prevents the seminal fluid of the male coming into contact with the female ovule.—On the other hand, *Sterility* (from Στεῖρος, barren) is that condition in which either no spermatozoa or ovules are secreted, or their vitality is immediately destroyed.

1. Impotence in Man.—The act of copulation may be rendered impossible by many causes:—By absence, or want of development, or malformation, or mutilation of penis.—By mental influences,—violent emotion, passion, over-excited desire, want of confidence, anxiety, grief, disgust: this form most curable, by tact and skill on part of physician (see *Montaigne's Essays*, Book I. chap. xx.).—By fevers and other severe diseases, sexual organs remaining feeble after general health is restored: curable by ferruginous tonics, nux vomica, sumbul, cantharides, Indian hemp, hypophosphite of lime or soda, sea bathing, nourishing food, and stimulating liniments or gentle galvanism to spine.—By injuries to back part of head,—from falls, blows, railway accidents &c.; there being generally incurable loss of power and wasting of testes and penis.—By injuries and diseases of spinal cord; which remove the power to copulate, though desire remains and semen may be secreted.—By excessive use of tobacco, which impairs digestion and weakens nervous and muscular systems: opium-eating injurious in same way.—By abuse of sexual functions removing

the power of erection,—onanism, excessive intercourse (see *Spermatorrhœa*).—Impediments to escape of semen; such as stricture of urethra, in which ejaculated fluid regurgitates into bladder.—Abnormal openings in urethra (hypospadias and epispadias), so that the semen is not ejaculated into vagina.—By excessive obesity: large scrotal herniæ.

2. Impotence in Woman.—May be due to:—Firm adhesions of labia pudendi.—Excessively developed and persistent hymen.—Absence, malformation, or an impervious condition of vagina (see *Vaginal Occlusion*).—Obliteration of this canal through inflammation.—A double vagina impedes but does not prevent copulation.—Supersensitiveness, with spasmodic closure of vagina (see *Vaginismus*).—Tumours of vagina, or uterine tumours which have passed into vaginal canal.—Elongation of cervix uteri. Engorgement, or induration, of labia uteri. Obliteration, obstruction, or great narrowing of os uteri or cervical canal: closure of uterine cavity by tumours, cancer &c.—Malpositions of uterus,—acute retroflexion and anteflexion.—Inflammatory affections of uterus.—Occlusion of Fallopian tubes: disease of their fimbriated extremities.—Irremediable procidentia of uterus.—Large vesico-vaginal, or recto-vaginal fistulæ, or complete rupture of perineum, allowing improper escape of seminal fluid.—Uterine cancer, even when vagina is involved, impedes but does not prevent intercourse and fecundation.

3. Sterility in Man.—Arises from:—Certain diseases, as tuberculosis, diabetes, albuminuria, some forms of obstinate dyspepsia: in advanced stages, secretion of seminal fluid usually stopped.—Some cerebral defect, owing to which the functions of testicles have never been called into play.—Diseases of testicles,—tumours, cancer, repeated attacks of inflammation, and varicocele; though as only one gland is usually affected, these conditions rarely produce sterility.—Malposition of testes, these organs being retained in abdominal cavity; copulation being feasible with these cryptorchics, but the semen ejaculated being destitute of spermatozoa.—Obstructions in the excretory ducts of testicle; such as temporary or permanent obstruction after epididymitis, power of copulating remaining but ejaculated fluid being destitute of spermatozoa.—Obliteration of ejaculatory canals from abscesses near prostate, leading to atrophy of testes.—Abuse of tobacco and opium and alcoholic drinks, as well as a syphilitic taint, may destroy vitality of spermatozoa.

4. Sterility in Woman.—Arises from:—Amenorrhœa.—Exhaustion or excessive general weakness.—Too frequent or imperfect sexual excitement.—Indifference to sexual act, or a restraint of the orgasm?—Absence, arrest of development, or disease of ovaries; only a relative, not absolute cause, as both glands are seldom diseased at same time.—Leucorrhœa, especially where the discharge is abundant and acrid; by causing destruction of the spermatozoa before they reach an ovule.—Syphilitic taint occasionally destroys vitality of ovules.

For the treatment of impotence and sterility refer to the different diseases of the sexual organs under their appropriate heads.

INDIGESTION.—From *In*, neg.; *digero*, to concoct or digest.—See *Dyspepsia.*

INFLAMMATION.—From *Inflammo*, to burn. Synon. *Phlogosis; Phlegmasia; Hyperhæmatosis; Hyperendosmose.* — Sometimes a destructive, sometimes a formative process; consisting essentially of local congestion and stagnation (stasis) of blood, with exudation of liquor sanguinis.

Symptoms. Pain. Swelling. Heat. Redness. Blood when drawn becomes buffed and cupped. Diminution of red corpuscles, and increase of fibrin: perhaps an increase of colourless corpuscles. Rise in temperature of the blood. Symptomatic fever. Depression. Rigors. Frequency of pulse. Headache. Thirst. Loss of appetite. Furred tongue. Diminution of chlorides in the urine. Increased excretion of urea. Sweating. Hectic fever. Hæmorrhage. Adhesive inflammation. Suppuration. Ulceration. Sloughing. Gangrene. Excessive wasting. Prostration.

Treatment. *Generally:*—Withdrawal of cause. Repose. Well-ventilated sick room. Light diet. Ice and cold drinks. Tea. Milk. Belladonna. Henbane. Aconite. Opium. Salines, 348, 349, 351 &c. Aperients. Acid tartrate of potash. Citrate of potash. Colchicum. Carbonate of ammonia. Wine or brandy.

Locally:—Fomentations. Poultices. Water-dressing. Ice. Evaporating lotions. Baths. Sinapisms. Turpentine stupes.

Antiphlogistic remedies:—Bleeding. Leeches. Cupping. Emetics. Drastic purgatives. Antimony. Mercury. Digitalis. Veratrum viride. Blisters. Setons. Issues. Low diet.

INFLUENZA.—From the Italian, *Influénza;* because the phenomena were thought to be due to the influence of the stars. Synon. *Rheuma Epidemicum; Defluxio Catarrhalis; Epidemic Catarrhal Fever; La Grippe* (in France).—An epidemic disorder attended with great depression, chilliness, running from eyes and nose, frontal headache, cough, restlessness, and fever.—Probably due to some peculiar condition or contamination of atmosphere.

Symptoms. Shivering or sense of chilliness down the back, followed by heat and dryness of skin. Urgent frontal headache: aching pains about eyes. Coryza, and sneezing. Tenderness of fauces. Hoarseness. Harassing cough, and shortness of breath. Pains in back and limbs. Perverted taste, with disordered stomach. In addition, all the signs of nervous and muscular prostration. Occasionally, acute bronchitis, or pneumonia. Runs its course in less than a week: often ends in diarrhœa, or diuresis, or profuse sweating.

Treatment. Rest in bed for first three days, in properly ventilated room. Barley water. Cold infusion of linseed, lemonade, soda water, raspberry vinegar &c. Tea and milk. Mutton or chicken broths. In mild cases, drugs unnecessary.—*If catarrhal symptoms are urgent:*—Ipecacuanha and conium. Henbane. Ethereal tincture of lobelia. Powder of ipecacuan and opium (gr. 10 at night). Indian sarsaparilla with infusion of linseed, 243. Spirit of nitrous ether with campho-

rated tincture of opium, 348. Inhalation of simple vapours. Iodine, lime water, belladonna, or conium spray, 262. Sinapisms to chest. Vapour, or hot air, bath.—*When prostration is a prominent symptom:*—Ammonia and bark, 371. Extract of beef, 1. Wine, or brandy. Brandy and egg mixture, 17.—*During convalescence:*—Bark and phosphoric acid, 376. Quinine and iron, 380. Cod liver oil. Nourishing diet: substitution of milk for tea and coffee. A few days' holiday in the country.

INSANITY.—From *In*, neg.; *sanus*, reasonable. Synon. *Mental Alienation; Unsound Mind; Deranged Intellect; Madness.*—No useful definition of insanity can be given. Speaking roughly, it may be said,—That it is a general term used to express the mental condition opposed to sanity; sanity being that state of mind which enables a man to discharge his duties to his God, his neighbour, and himself.

Warnings. Indications of impending cerebral mischief often to be detected by physician some months before they attract notice of patient or his friends. Cerebral affections not developed suddenly: often rendered incurable by neglect of treatment in early stages. Threatenings which should excite alarm are:—Headache, severe and frequent; attacks of giddiness and mental confusion; paroxysms of irritability, and loss of temper without sufficient cause; inaptitude for usual occupations; weariness of life; sleeplessness, or lethargy; loss of memory; some marked deviation from usual line of conduct; sanguineous tumours about external ear; defective articulation; dimness of sight; flightiness of manner; sufferer feels that he is not quite right, but does not like to consult a physician. He shuns his old friends; is tortured with blasphemous or obscene thoughts; has frightful dreams; frequently suffers from dyspepsia.

Complications. Mental diseases often accompanied with symptoms of a variety of bodily disorders. Of all forms of insanity those complicated with general paralysis, or with epilepsy, are the most terrible.

Insanity with general paralysis:—An affection sui generis. Sometimes spoken of as "general paralysis"; "general paresis"; or, more appropriately, as "progressive paralysis of the insane."—Paralytic lunatics seldom live more than from one to three years.—The paralysis may come on in any variety of mental disease, increasing as power of mind diminishes. The first indication is usually an impediment to movements of tongue: convulsive trembling of lips: articulation muffled and imperfect. As this impediment increases, there come on tottering, uncertain, and vacillating movements in walking: sometimes, impairment of locomotion precedes other symptoms. Handwriting gets changed. A heavy vacant look. Intelligence and judgment greatly lessened. Fits of irritability, hallucinations, and illusions. Loss of memory. Debasement of moral character. Pulse gets frequent and feeble. Tongue on being protruded curves tremulously from side to side. Pupils often of unusual size, and their mo-

bility lessened. Excretions escape involuntarily, either from want of attention, or from paralysis of sphincters. Hemiplegic seizures, attended with convulsions or coma, not uncommon; though they generally pass off after use of stimulating enemata, and removal of any collection of hardened fæces.—As disease progresses, patients become unable to articulate a single word; they continually grind their teeth; their weakness such that they cannot walk or stand; all traces of intelligence get abolished; they remain motionless and insensible, their torpid existence being reduced to a kind of slow death.—All that can be done with remedies is to give sleep, relieve painful symptoms, and support strength. Henbane, in twenty grain doses, may be useful. Nourishing diet. Warmth. Cleanliness. Attention to bowels and bladder.

Insanity with Epilepsy:—Always incurable. Conduct of insane epileptics most ferocious; homicidal, or suicidal. Filthy and disgusting in their habits. Residence in a well-ordered asylum does much to induce a certain amount of mental tranquillity. Good diet, and daily exercise, contribute to physical improvement. Bromide of potassium is said to reduce the frequency of the fits, and to soothe nervous irritability. If early death do not result, disease usually subsides into incurable dementia.

Varieties. Differences between various forms of insanity always imperfectly marked. Descriptions in books extraordinarily distinct, compared with medley of symptoms in real cases. Various forms frequently run into each other.

(1) *Mania* (Μαίνομαι, to rage), or *raving madness*:—Characterised by general delirium. Reasoning faculty, if not lost, is disturbed and confused. Ideas abundant, erroneous, absurd, wandering. Manners violent, excited, mischievous.

Rarely comes on suddenly, though it does so more frequently than other varieties. Premonitory symptoms:—Neglect of family and business. Distrust of relatives. Causeless attacks of anger and despondency. Insomnia.—Disease sets in with general delirium, and extreme fury. Tendency to suicide. Shouting, howling, laughing, reciting &c. for hours together: angry, furious, destructive, ceaseless movements. Weakness, exhaustion, emaciation. Want of sleep. Aversion to food. Incontinence of urine.—Recovery preceded by sleep, desire for food, with a gradual cessation of agitation and delirium.

(2) *Monomania* (Μόνος, alone; μαίνομαι, to be furious,—irrationality on one subject only), or *partial insanity*:—That form in which the understanding is deranged to a certain degree, or is under the influence of some one particular delusion. Mind, vigorous: ideas, few, erroneous, fixed, not under control. Manners, in accordance with predominant idea. A false principle seized upon, which is pursued logically, and from which legitimate consequences are deduced. Thus, a monomaniac insists that his body is made of glass; and impressed with this idea he takes care to avoid rough handling, lest he should be broken. Or, in belief that he is a divine instrument of

vengeance, he may commit murder. Aside from his partial delirium he will reason and act like other men; so that the insanity is often difficult of detection.

There are particular forms of monomania:—*Melancholia* (Μέλας, black; χολή, bile), or *lypemania* (Λύπη, sadness; μανία), is characterised by fear, moroseness, and great despondency: an unwillingness to move, talk, or take food &c.—In *autophomania* (Αὐτοφόνος, a self-murderer), there is a desire for suicide; to effect which, melancholics will take most extraordinary steps.—In *androphomania* (Ἀνήρ, a man; φονεύω, to kill) there is an uncontrollable tendency to murder.—*Pyromania* (Πῦρ, fire) is marked by a propensity to set buildings on fire.—An irresistible desire to steal is known as *kleptomania* (Κλέπτω, to steal).—In *erotomania* (Ἔρως, love), amatory delusions rule, just as religious delusions predominate in *theomania* (Θεός, God) or religious melancholy. Erotomania may be an excessive degree of a chaste and honourable affection; or it may be combined with *nymphomania* (Νύμφη, the nympha) in women, or with *satyriasis* (Σάτυρος, a satyr) in men. In all forms of erotomania there is great mental and bodily depression; women suffer most frequently, especially the single; and the phenomena are often connected with some disease of sexual organs.

(3) *Dementia* (*De*, priv.; *mens*, the mind), or *incoherence*:—That condition in which weakness of intellect, induced by accident or age, is the prominent feature. Mind, altogether feeble; ideas confused, vague, wandering; memory much impaired. Patients ignorant of time, place, quantity, property &c.: forget immediately what they have just seen or heard. Manners undecided, childish, and silly. The demented have neither affections nor aversions, nor care for anything. Paroxysms of restlessness and excitement. Little or no control over bladder and rectum. In last stage, complete paralysis.

(4) *Idiocy* (*Idiota*, a simpleton):—Characterised by partial or complete absence of intellect, owing to congenital imperfection of brain. Mind, not developed: ideas simple or few. Manners foolish; transient gusts of passion. Countenance vacant. Sanguineous tumours about external ear. Articulation and gait often imperfect. Occasionally, the idiot is a blind deaf-mute.

Treatment. *Prophylactic*:—Rest of mind, or change of occupation: proper amount of sleep. Attention to functions of sexual system, skin, liver, kidneys, alimentary canal. Removal of any bodily disorder.—Henbane. Stramonium. Indian hemp. Digitalis. Morphia, or opium. Chloroform. Quinine and steel. Syrup of phosphate of iron. Phosphate of zinc. Bark. Cod liver oil. Nourishing food: milk: stimulants with discretion. Change of air and scene.

Curative:—All antiphlogistic remedies badly borne. Removal of other disorders,—skin diseases, uterine disturbances, syphilitic taints, gastric and intestinal disturbances &c. Then, in ordinary forms of insanity, a nutritious diet; warm clothing; out-door occupations and amusements; cheerful recreation. Sleep at night to be procured by sedatives. Healthy evacuations to be obtained from bowels by vegetable alteratives, and mild aperients. General strength to be im-

proved by tonics. All bad habits, as onanism, to be prevented. Gentle and slow attempts to revive affections, and strengthen bewildered intellect. Baths often useful,—douche, shower, warm, or Turkish. Where food is refused, any derangement of stomach or bowels to be removed, and healthy evacuations procured: this failing, forced alimentation, with stomach-pump, will be required. All harshness and mechanical restraint to be avoided. Unfortunate patient's confidence to be obtained; every promise that is made must be kept; as much indulgence as possible to be allowed.

Restraint in a well-managed asylum, often necessary to enable treatment to be effectually carried out: imperatively called for, when patient has suicidal or homicidal tendencies.

INTERCOSTAL NEURALGIA. — Neuralgia (*Νεῦρον*, a nerve; *ἄλγος*, pain) may affect the intercostal, as it does the other nerves of body. Chlorotic and hysterical women most liable to it. Sometimes occurs in Bright's disease, phthisis &c. Must not be confounded with neuritis, or with pleurisy.

Symptoms. Pain of a dull and continued aching character, or sharp and paroxysmal. Sometimes lasts for weeks. Most frequently located in sixth, seventh, eighth, or ninth nerves of left side. Follows course of nerves (anterior primary branches of dorsal), extending from anterior part of thoracic wall directly backwards to vertebræ. One or two painful spots sometimes detected on pressure. Occasionally, cutaneous hyperæsthesia of whole mammary or infra-mammary region. Debility. No febrile symptoms. In women, catamenia may be irregular: leucorrhœa.

Treatment. Quinine and aconite, 379. Quinine and steel, 380. Steel and arsenic, 399. Cod liver oil. Belladonna and aconite liniment, 281. Strips of belladonna plaster completely round thorax. Flannel bandage. Subcutaneous injection of morphia or atropine, if there are one or more sensitive spots, 314. Nourishing food. Malt liquors or wine.

INTERMITTENT FEVER OR AGUE.—From *Intermitto*, to give over for a time. Synon. *Periodic Fever*. Sometimes termed *Paludal fever*, from *Palus*, a fen or marsh.—See *Ague*.—A disease chiefly due to marshy miasms, in which febrile phenomena occur in paroxysms, are ushered in by rigors, and end in a critical sweat. During the remission there is good health; but at end of a definite interval the phenomena are repeated, and this happens again and again until a cure is effected.

Three species of intermittent fever or ague, viz., *Quotidian*, *Tertian*, and *Quartan*. Tertian most common in this country; quotidian in India. When the paroxysm occurs at same hour every day, it is called quotidian ague; when every other day, tertian, though secundan would be more appropriate; and when absent for two whole days, and then recurrent, quartan. In first species the interval is twenty-four hours; in second, forty-eight; in third, seventy-two. The time between commencement of one paroxysm and beginning of next is

termed the *interval;* that between termination of one paroxysm and commencement of next, the *intermission.* In quotidians the paroxysm occurs, for most part, in morning; in tertians, at noon; in quartans, in afternoon. The first is most common in spring; the second, in spring and autumn; the third, in autumn.

Symptoms. An ague fit is composed of three stages,—the cold, hot, and sweating. The first has a duration varying from 30 minutes to 3 or 4 hours: the second rarely lasts less than 3 or more than 12 hours: while the third continues a few hours, and ends in complete relief. Patient comparatively well during interval.—Enlargement of spleen, a frequent result—*ague cake.* Disturbance of liver and digestive organs. Chronic desquamative nephritis sometimes a consequence of repeated attacks.

Treatment. *General rules:*—Removal from malarious district. Nourishing diet with stimulants. Aperients, or emetics, if bowels or stomach be loaded. Bicarbonate of soda or potash, with a few drops of tincture of belladonna, if bladder be irritable.

In cold stage:—Warm diluent drinks, as weak tea, white wine whey, or negus. External warmth by blankets, hot bottles to feet, hot air baths.

In hot stage:—Cooling drinks. Sponging with tepid or cold water. Light coverings. *In sweating stage:* — Diluents freely. Repose.

Curative remedies:—Quinine; 2 or 3 grains to be given every six or eight hours during the intermission, in acid infusion of roses. In Indian intermittents, 10 or 20 or 30 grains of quinine during sweating stage. Subcutaneous injection of quinine, 379. Arsenic, 52. Salicin. Sulphate of beberia.

To reduce the spleen:—Quinine and iron, 380. Bromide of potassium, 42. Cod liver oil. Friction with ointment of red iodide of mercury diluted with an equal quantity of lard. Iodide of potassium ointment. Compound ointment of iodine.

INTESTINAL CONCRETIONS.—Synon. *Alvine Calculi; Intestinal Calculi.*—Calculous concretions very rare in human intestines, compared with their frequency in large ruminating animals. In man, they are more common in cæcum and colon, than in other portions of alimentary canal. *Bezoars* consist chiefly of imperfectly crystallized earthy salts and indigestible fibrous matters, arranged in concentric layers round a nucleus—a gall-stone or any foreign body. Other concretions may consist solely of hardened fæces, with the phosphates of lime and magnesia; or of chalk or carbonate of magnesia, where these substances have been largely taken; or of hair, cotton, or paper when a depraved appetite has led to the consumption of either; or of gall-stones with layers of inspissated mucus and fæcal matter. Either kind may gradually increase in size, until there is complete obstruction of the gut. In fortunate cases, concretions have been expelled by vomiting or passed at stool. When situated in the rectum, they can be removed by the scoop. If one or more can be felt through the

abdominal parietes, producing obstruction, an incision into intestine has been recommended, all other plans failing.

INTESTINAL OBSTRUCTION.—Synon. *Ileus* (from Ειλέω, to twist or contract); *Ileac Passion; Colique de Miséricorde; Volvulus, Volvo*, to turn or roll itself round about).

Causes. Excluding examples of inguinal and femoral and umbilical hernia, the causes are:—

(1) *Intermural*, or those originating in and implicating mucous and muscular coats of intestinal walls:—
- *a.* Cancerous stricture, most common in sigmoid flexure of colon and in rectum.
- *b.* Non-cancerous stricture, comprising—
  1. Contractions of cicatrices following ulceration.
  2. Contractions of walls of intestine from inflammation, non-cancerous deposit, or injury.
- *c.* Intussusception: ileum and cæcum most commonly protruded into colon.
- *d.* Intussusception associated with polypi.

(2) *Extramural*, or those causes acting from without, or affecting the serous covering:—
- *a.* Bands and adhesions from effusion of lymph.
- *b.* Twists or displacements.
- *c.* Diverticula.
- *d.* External tumours or abscesses.
- *e.* Mesocolic and mesenteric hernia.
- *f.* Diaphragmatic and foramen of Winslow hernia.
- *g.* Omental hernia.
- *h.* Obturator and ischiatic and perineal hernia.

(3) *Intramural*, or obstructions produced by lodgment of foreign substances:—
- *a.* Foreign bodies, hardened fæces, concretions having for nuclei gall-stones &c.

Symptoms. Constant vomiting: at first of mucus and contents of stomach, but in a few days of fæcal matter (stercoraceous vomiting). Pain, often very severe. Tympanites, with violent borborygmi unless occlusion be high up. Hiccough, especially in strangulation of upper part of small intestines. Mental depression. Pathognomonic symptom—constipation. Palpation often detects increased fulness just above obstruction: more marked diminution of resonance at this point than elsewhere. Early prostration. Acute peritonitis commonly occurs in a few days. Gangrene most frequent in intussusception and obturator hernia. The lower the obstruction, the less urgent the vomiting, and the longer the time before it commences. The higher the obstruction, the greater the diminution in the quantity of urine.

Treatment. *When diagnosis is doubtful:*—Castor oil. Castor oil and turpentine enema, 190. Croton oil enema, 191.

Directly it is certain a mechanical obstruction exists:—Purgatives injurious. Extract of opium (gr. 1 every four, six, or eight hours). Opium and belladonna, 344. Subcutaneous injection of atropine,

314.—Fomentations. Linseed poultices, with application of belladonna and opium, 297.—Food and fluids in very small quantity. Ice. Frozen milk. Lime water and milk, 14. Tea and cream. Brandy and water. Essence of beef, 3. Eggs, cream, and extract of beef, 5. Brandy and egg mixture, 17.—Hot baths. Enemata of large quantities of fluid, with manipulation of intestines by pressure on them through abdominal walls. Gastrotomy.

INTESTINAL PERFORATION.—The intestine may be perforated owing to:—(1) Disease in coats of bowel,—as in typhoid fever, inflammation of cæcum, dysentery, cancer of stomach or intestines &c. (2) From extension of ulceration in disease of adjacent organs,—as in hydatids and abscess of liver, calculi in gall-bladder, ovarian tumours, extra-uterine pregnancy, ovarian abscess, pelvic cellulitis, cancer of uterus or vagina, and suppuration in abdominal parietes.

INTESTINAL WORMS.—Seven principal entozoa (*Ἐντὸς*, within; *ξῶον*, an animal) may be found inhabiting intestinal canal:—*Trichocephalus dispar*, or long thread-worm; *Ascaris lumbricoides*, or large round-worm; *Oxyuris vermicularis*, or small thread-worm; *Sclerostoma duodenale*, unknown in this country; *Tænia solium*, or common tape-worm; *Tænia mediocanellata*, or hookless tape-worm; and *Bothriocephalus latus*, or broad tape-worm, almost peculiar to inhabitants of Switzerland, Russia, and Poland.

Symptoms. Colicky pains and swelling of abdomen. Picking of nose. Itching of rectum and fundament. Foulness of breath. Irregularity of bowels. Grinding of teeth at night. Frequent feeling of malaise. Voracious or impaired appetite. Only conclusive sign,—passage of worms, or of joints of them, in stools.—From reflex irritation, epileptic attacks or chorea may occur.

Treatment. *For round and tape-worms:*—Liquid extract of fern root, 187. Santonin, 185. Oil of turpentine, 183. Kousso, 184. Kamela, 182. Calomel with scammony or jalap, 159. Garlic (Allium sativum). Oil of rue. Assafœtida. Oxide of silver. Spigelia. Decoction of pomegranate root. Veratria. Chloride of tin. Sulphur. Gamboge. Croton oil. Cowhage (Mucuna pruriens). Common salt.

For thread-worms:—Enemata of cold water; lime water; infusion of quassia; steel and quassia, 192; common salt, 188; spirit of ether (min. xv to each ounce of water); olive oil. Calomel, with scammony, or jalap, 159. Santonin, 185.

To prevent recurrence:—Avoidance of raw and underdone animal food, especially pork; as well as of imperfectly washed raw vegetables. Steel and sulphate of soda, 180. Quinine, rhubarb, and hop, 370. Infusions of chamomile, chiretta, quassia, or rhubarb. Quinine and steel, 380. Steel, glycerine, and quassia, 392. Compound iron mixture and aloes, 393. Extract of nux vomica, 175. Phosphate of iron, 405. Steel, hydrochloric acid and quassia, 397. Ammonia iron-alum, 116. Glycerine. Cod liver oil. Extract of wormwood (Artemesia absinthium). Oil of stink wood (Chenopodium anthelminticum).—See *Entozoa*.

INTRA-THORACIC TUMOURS.—May be aneurismal; or composed of cancer, simple exudation matter, fibrous tissue, or of fatty or steatomatous matter. Discarding aneurisms, these tumours have their origin in the glandular structures, and are developed in the mediastina.

Symptoms. Chiefly due to pressure exerted on heart or lungs, or on the nerves and vessels. Hence, tumour often considerable before it interferes with circulation or respiration.

General symptoms:—More or less pain; restlessness; cough; dyspnœa, or even orthopnœa; frothy or viscid expectoration; palpitation; hoarseness; frequently dysphagia; sometimes hæmoptysis. Pleurisy, bronchitis, pneumonia, laryngitis, or tracheitis may arise from constant irritation. Pulmonary collapse may be caused by pressure. Bulging, or even perforation, of ribs and sternum. Displacement of heart. Impediment to circulation through aorta, or through superior or inferior vena cava. Dulness on percussion more marked as growth protrudes into anterior mediastinum. Auscultatory signs vary according to nature of secondary complications.

In primary cancer involving root of lung, inflammatory condensation of pulmonary tissue, with disorganization and abscess, may result early. These changes probably due to tumour involving and destroying all or a greater part of pulmonary nerves as they pass off from root of lung.

Death takes place slowly in mediastinal tumour generally. The pain, want of sleep, loss of appetite, dyspnœa &c. weaken patient. Anæmia, followed by anasarca, sets in. Sometimes sudden death from hæmorrhage, thrombosis, or spasm of glottis.

Treatment. All that can be done is to palliate symptoms. Temporary relief may be given by,—Diuretics and aperients. Antispasmodics,—Ether, chloroform, belladonna, aconite, stramonium, opium &c. Iodide of potassium, 31. Iodide of ammonium, 38. Chlorate of potash, 61. Dry cupping. Inunction with red iodide of mercury ointment, 302. Iodine and cod liver oil ointment, 308. Iodide of cadmium ointment, 311. Venesection to six or eight ounces, if symptoms of pulmonary or cardiac congestion predominate.

INTUSSUSCEPTION.— From *Intus*, within; *suscipio*, to carry. Synon. *Invagination* (*In*, within; *vagina*, a sheath).—That condition in which one part of the bowel is drawn into another portion, just as the finger of a glove is pulled within itself. Owing to the congestion, effusion, and inflammation which result, the canal of the bowel gets more or less obstructed.

The intussusception may be single or multiple: the traction is usually from above downwards: in about half the cases, ileum and cæcum protruded into colon: most common in young children and aged persons.

Symptoms. The chief are sudden violent pain; sickness; obstinate constipation; discharges of blood and mucus per anum. Spontaneous reduction may take place. In less fortunate cases, inflammation of peritoneal coats of involved portion usually sets in between third and

seventh days; opposed surfaces becoming adherent. Inflammatory action may end in gangrene; several inches of included sphacelated bowel coming away by stool, and leaving canal of gut free.

Treatment. See *Intestinal Obstruction.*

IRITIS.—From Ἶρις, the rainbow,—any object supposed to resemble a rainbow; terminal *-itis.* Synon. *Iriditis; Inflammatio Iridis.*—Suspended (like a curtain with a circular aperture in its centre) between the cornea and crystalline lens, and bathed on both sides by aqueous humour, the iris serves to regulate amount of light admitted to retina. By it, the cavity containing aqueous humour is divided into an anterior and a posterior chamber.—Iris composed of delicate bundles of fibrous tissue, of circular and radiating involuntary muscular fibres, and of pigment cells. Sometimes, absent; or only present in a rudimentary form, a condition known as *Irideremia.*—In *Albinism* the iris is of a rose colour, while pupils present a deep red appearance owing to absence of opaque pigment (uvea).—In *Coloboma* the two halves of the iris have failed to unite, in consequence of arrest of development, so that pupil has an elongated form.

1. Acute Inflammation.—The iris is seldom alone attacked: sclerotic and deep-seated textures of eye generally also involved. Hence, objections have been raised to use of term Iritis: its employment "has the effect of directing the practitioner's attention to the iris, which bears a great deal of inflammation without destruction to the organ, and withdrawing it from the retina, which bears very little without permanent injury to vision." (Jacob.)

Symptoms. In first stage, iris presents a confused appearance, owing to its fibrous texture becoming indistinct: loses its contractile power, and undergoes a change in colour. Sclerotic becomes extravascular. In next stage, fibrin effused on surface of iris, and in anterior chamber. If inflammation proceed, pupil may get closed, or its margin become adherent to capsule of lens; or cornea may be rendered opaque; or permanent opacity of lens or its capsule may result.

The important symptoms may be thus enumerated:—(1) Zonular sclerotitis; fine hair-like vessels, running in radii towards edge of cornea. (2) Discoloration of iris. If naturally blue, it becomes greenish; if dark coloured, reddish. This the result of increased vascularity, or of effusion of lymph into its substance, or on its posterior surface. (3) Contraction, irregularity, and immobility of pupil. (4) Effusion of coagulable lymph into pupil and posterior chamber, and occasionally into anterior chamber. (5) Adhesions of iris, and especially of pupillary edge, to capsule of lens; in some rare cases, to cornea. (6) Tubercles, pustules, or small abscesses of iris. (7) Dimness of sight, and sometimes total blindness. (8) Pain in eye, and nocturnal circumorbital pain. (Mackenzie.)

Not to be supposed that in every case all the foregoing symptoms will be met with: rather a certain number of them will be found, sufficient to render diagnosis certain. Constitutional disturbance well marked, though not generally severe.

If inflammation be not checked, it creeps on, involves choroid coat and retina, and, spoiling delicate texture of latter, completely destroys sight for ever.—When one eye has been permanently injured from any cause, sympathetic subacute inflammation is not unfrequently set up in the sound organ at the end of some months, or even in the course of a few days, which may go on to produce complete destruction. To prevent this it is often necessary to remove the eye which was first damaged.

The chief *causes* are:—Exposure to cold and wet, giving rise to rheumatic or idiopathic iritis; syphilis, causing syphilitic iritis; injuries and wounds producing traumatic iritis; and certain conditions of the constitution, especially the scrofulous, rheumatic, and gouty.

Iritis arising as a secondary effect of syphilis, is perhaps the most common. May occur at all ages. Usually attended with other effects of constitutional syphilis—copper-coloured eruptions, nodes, pains in bones especially severe at night, and ulceration of throat. At first, redness is less severe than in rheumatic form; there is seldom any haziness of cornea, as in rheumatic iritis; iris often assumes a rusty colour, especially near pupillary edge; pupil is apt to be displaced, and to be drawn upwards towards the root of the nose.

Treatment. Mercury, bleeding, and belladonna are the supports on which practitioner has been taught to rely. That the first two agents may be advantageously dispensed with is proved by reports of sixty-four cases; all of which were cured by sustaining general health, relieving pain with narcotics, and keeping pupil dilated by belladonna (Dr. W. H. Williams).

The object must be to check flow of blood towards the part; to arrest effusion of fibrin; and to procure absorption of that poured out. To gain these ends, patient to be kept quiet, preferably in darkened room, and with eye protected from light. Sedative fomentations, if the eye is morbidly sensitive; bowels to be kept regular by mercurial purgatives, or enemata; opium to be given to relieve pain; diet to be plain but nourishing, and free from stimulants. Iodide of potassium (31) often of great value, especially in rheumatic and strumous iritis: in that dependent upon syphilis, mercury (25, 34, 131) sometimes more useful, though not to salivation.—*If there be depression*, —Ammonia and bark, 371; quinine, 379; salicin and sarsaparilla, 388.—*When circumorbital pain is intense*,—relief may be afforded by mixing three grains of powdered opium with ten of mercurial ointment, and well rubbing the compound into the temple.—*The pupil to be kept dilated* (in order to prevent iris from forming adhesions with capsule of crystalline lens) by belladonna; or more conveniently by solution of atropine, 288; or by discs of gelatine atropine paper. No astringent or other collyria should be employed.

Other remedies recommended:—Turpentine; colchicum; cod liver oil; santonin; henbane. Stramonium (locally, as a substitute for belladonna).

2. **Inflammation of Iris and Cornea.**—It was erroneously believed until recently that a serous membrane or capsule covered the posterior

surface of cornea, both surfaces of iris, and front of capsule of lens. Hence, the present disease was supposed to consist of inflammation of this membrane, and was named "aquo-capsulitis."

Symptoms. They run a chronic course. There is chiefly,—intolerance of light; vascularity of sclerotic; haziness of cornea; and slight change in colour of iris. General health always bad. The disease very obstinate in delicate children. Probably always the result of inherited syphilis.

Treatment. Mild alteratives; tonics; good diet. Tincture of iodine carefully applied to skin of eyelids often relieves intolerance of light.

3. Mydriasis.—From Μυδάω, to be damp; because the disease was supposed to be occasioned by redundancy of humours.—From paralysis of third nerve or motor oculi, long continued use of belladonna, and other causes—the iris sometimes loses its power, so that pupil remains dilated. This condition must not be confounded with immobility of pupil owing to disease of retina, from which it may be distinguished by a simple experiment practised by ophthalmic surgeons. The patient is directed to supply the want of a contracted iris by looking through a large pin-hole in a card held close to the eye. If case be one of mydriasis, he will see perfectly; whereas, if retina be diseased, the aperture will be nearly or quite useless.—The remedies for mydriasis consist of tonics which act specially upon the nervous system,—Zinc, 414, 416; nux vomica, 387, 409. Phosphate of iron, 405. Strychnia and steel, 408. Ergot of rye. A succession of blisters to the temple. Concave glasses often serviceable. The local employment of the Calabar bean might be useful where the disease has been caused by belladonna.

4. Myosis.—From Μύω, to contract. An unduly contracted state of the pupil.—There is obscurity of vision, especially in a weak light. The remedies are rest, with tonics to improve the general health. The use of belladonna has been condemned.

JAUNDICE.—Probably from the French *Jaunir*, to become yellow. Synon. *Icterus.*—A prominent symptom of many varied morbid processes. Like albuminuria, glucosuria &c. a symbol of changes going on in the economy, rather than a specific disease.

All forms can be included under one of two divisions:—(1) Those due to suppression of biliary functions, in which the colouring matter of bile and cholesterine accumulate in the blood. (2) Those arising from re-absorption of bile properly formed, the flow of which into duodenum is impeded. After jaundice from obstruction has existed some time, suppression likewise occurs; owing to backward pressure exerted on hepatic parenchyma by over-distended bile-tubes impeding capillary circulation through the gland.

Symptoms. Yellowness of conjunctivæ and skin. Saffron hue, or brownish-black tinge, of urine; according to amount of bile-pigment present. White colour, or light clay appearance, of fæces. Itching of skin. Perhaps, exhaustion; drowsiness, giddiness, and peevishness; bitter taste; slow pulse; dyspepsia, especially for fatty food.

Exceptionally, corneæ, or aqueous and vitreous humours have become jaundiced; making all objects appear of yellow hue.

If disorder be of long-continuance, there may be marked stupor, delirium, and other indications of cerebral derangement. Weakness and emaciation from mal-nutrition. Tendency to hæmorrhage—bleeding from gums, purpura &c.—Where there is obstruction from a gall-stone, most severe suffering results; vomiting and hiccup; perhaps fatal exhaustion.

In jaundice from *suppression*, urine only contains those biliary ingredients which exist pre-formed in the blood. In that from *obstruction*, besides these, there are materials (bile-acids) generated in liver itself; which have been re-absorbed into circulation from over-charged gall-badder and ducts. To distinguish between these, add gently to about two fluid drachms of urine half a drachm of strong sulphuric acid, and a piece of loaf sugar as large as a pea. If at line of contact of the two liquids a purple or scarlet colour is produced, it shows that acids of bile are present,—jaundice therefore due to obstruction: if merely a browning of the sugar take place, there are probably no bile-acids, and the case is one of suppression (Harley).

Treatment. *From suppression:*—Sulphate of soda and taraxacum, 144. Nitric acid, senna, and taraxacum, 147, 227. Resin of podophyllum, 30, 160. Benzoic acid, 479. Colchicum, 46. Nitro-hydrochloric acid, 378. Hydrochlorate of ammonia, 60. Acid tartrate of potash drink, 356. Sulphate of manganese, 172.

From obstruction:—Compound decoction of aloes. Pill of Barbadoes aloes. Sulphate and carbonate of magnesia, 141. Squills, digitalis, and broom, 219. In long-continued obstruction, capsules of pig's bile, 170.—See *Gall-Stones*.

KELOID.—Perhaps from Κήλη, a tumour; εἶδος, like. Described by Alibert as *Kelis, Cheloidea*, or *Cancroide;* owing to its presenting a flattish raised patch of integument, resembling the shell of a tortoise (Χέλυς, a tortoise; terminal *-ides*).—Consists of flat tender excrescences or cuticular folds; one or more inches in diameter; raised a few lines above level of skin; having irregular forms with slight depressions in their centres; and covered with wrinkled epidermis. Sometimes, excrescence resembles a cicatrix left by a burn. There may be only one tumour, or several. Disease developed slowly; rarely ends in ulceration; sometimes disappears spontaneously, merely leaving a cicatrix; is usually found on chest between the mammæ; and is very uncommon.

Treatment. Arsenic, 52. Donovan's triple solution, 51. Iodide of potassium. Cod liver oil. Removal by knife or caustics, injurious. Pressure, useless.

KNOCK-KNEES.—Synon. *Genua Valga.*—A relaxation of internal lateral ligaments of knee joints, allowing femur and tibia to become separated, so that an angular obliquity of the bones results.—May come on in delicate and strumous children when they begin to walk. Not uncommon in porters who carry heavy weights on the head. When treatment is called for may be remedied by an articulated

apparatus extending from pelvis to heel. Improvement of general health.

LARYNGISMUS STRIDULUS.—From Λαρυγγίζω, to vociferate with all his might: *Strideo*, to make a hissing noise. Synon. *Apnœa Infantum; Laryngospasmus; Infantile Laryngismus; Thymic Asthma; Spurious* or *Cerebral Croup; Child-crowing.*—A spasmodic disease occurring in infants, chiefly during dentition. It consists of a temporary, partial, or complete closure of rima glottidis; by which entrance of air into lungs is impeded or stopped.

Symptoms. Interruption of breathing. Rigidity of fingers and toes,—carpo-pedal spasm. Child suddenly seized with dyspnœa: it struggles and kicks, is unable to inspire, and seems about to be suffocated. Presently, spasm ceases; air drawn through chink of glottis with a shrill whistling or crowing sound. Paroxysms may return in a few hours or days.

Treatment. *During paroxysm:*—Hot water to lower parts of body, with cold affusion to head and face. Slapping of chest and nates sharply. Exposure of face and chest to current of cold air. Gentle inhalation of chloroform. Vapour of ether or ammonia to nostrils. Artificial respiration, drawing tongue well-forwards. As a last resource, tracheotomy. — *During interval:* — Mild purgatives. Anthelmintics, if necessary. Antispasmodic tonics:—Zinc and belladonna, 92. Assafœtida. Hydrocyanic acid. Valerianate of iron. Quinine. Cod liver oil. Especially change of air. Cold sea water sponge baths. Simple diet, with milk. Lancing of gums, if they be tender and swollen.

LARYNGITIS.—From Λάρυγξ, the windpipe; terminal *-itis.*—Acute inflammation of the larynx is a rare disease: it is generally fatal. Œdema of glottis may occur from other causes than acute inflammation. Larynx also liable to chronic inflammation, ulceration, polypi &c.

1. Acute Laryngitis.—Synon. *Inflammatio Laryngis; Cynanche Laryngea; Angina Laryngea.*—Almost peculiar to adults. Generally arises from cold and wet in unhealthy constitutions. Occasionally caused by syphilis. Inflammation often of limited extent: the great danger due to its situation.

Symptoms. Come on insidiously. At end of some hours,—fever; redness of fauces; pain referred to pomum Adami; difficulty of breathing and swallowing; considerable anxiety; hoarseness, or even complete loss of voice. Spasmodic exacerbations: paroxysms of threatened suffocation. Long inspirations: peculiar wheezing sound, as if air were drawn through a narrow tube. Perhaps, harsh and brassy cough. Dysphagia: liquids swallowed with more difficulty than solids. Face gets flushed; eyes protruded; pulse hard; great general distress. Larynx and trachea move rapidly upwards and downwards: all the muscles of respiration brought into strong action, so that chest heaves violently. Patient gasps for breath: tries perhaps to get to open window. He soon sinks into a drowsy and delirious state; and speedily dies suffocated, from obstruction of chink of rima glottidis.

Treatment. Rest and quiet: forbid talking. Air of room to be kept moist: temperature 70° F. Turpentine, or hot water, stupes to neck. Extract of belladonna to neck, with linseed poultices. Inhalation of steam of boiling water; or of vapour medicated with hydrocyanic acid or a little chloroform, 261. Inhalation of spray medicated with stramonium, belladonna, conium, or iodine, 262. A respirator to be worn during intervals between inhalations. Directly there are indications that the blood is not thoroughly oxygenated,—tracheotomy. Milk, or cream. Raw eggs. Beef tea. Wine or brandy.

Bleeding, blistering, calomel, tartarated antimony,—positively injurious. If disease be due to constitutional syphilis,—free mercurial inunction; mercurial vapour baths, 131.

2. Œdema of Glottis.—Synon. *Œdematous Laryngitis; Hydrops Glottidis; Submucous Laryngitis.*—May be caused by laryngitis; boiling water, or corrosive poisons taken accidentally into mouth; poison of erysipelas. Sometimes simulated by dyspnœa of general anasarca, renal disease &c. Hence a laryngoscopic examination should often be made to remove all doubt. To favour subsidence of tumefaction sponge epiglottis and cavity of larynx with solution of nitrate of silver (gr. 60 of crystals to one ounce of distilled water). Scarifications of œdematous swelling may be successfully made by aid of laryngoscope. These plans failing,—laryngotomy or tracheotomy.

3. Chronic Laryngitis &c.—Chronic inflammation and ulceration not uncommon in pulmonary consumption: a species of tuberculosis known as *phthisis laryngea.*—Membrane lining laryngeal cartilages often becomes thickened and ulcerated in constitutional syphilis.—Polypi and warty tumours arise from different parts of larynx: cause great impediment to entrance and exit of air. May be removed by aid of laryngoscope with a small wire écraseur.—Epithelial cancer occasionally seated about vocal cords.—See *Foreign Bodies in Air-passages.*

LEAD COLIC.—Synon. *Painter's Colic; Saturnine Colic; Morbus Metallicus; Colica Rachialgia; Dry Gripes* or *Bellyache*; *Colica Pictonum*, from its former frequency among the Pictones or inhabitants of Poictou.—Attacks of colic, vomiting, and constipation from the presence of lead in the system. Often followed by paralysis.

Symptoms. In addition to those of ordinary colic, an intense grinding or twisting sensation round navel: retraction of abdominal integuments towards spine: pain in back. A blue or slate-grey line round edges of gums.

House painters suffer most frequently: often have many attacks before muscles of arms become affected with paralysis, causing *drop-wrist.* Sleeping in a recently painted room, drinking fluids which have been kept in leaden vessels, taking snuff adulterated with lead &c. are not uncommon causes.

Treatment. *During attack:*—Calomel and jalap, with sulphate of magnesia, 140. Sulphate of magnesia and sulphuric acid, 142. Sulphate of soda and sulphuric acid, 143. Castor oil, 164. Croton

oil, 168. Enemata of warm water. Hot baths. Opium and chloroform, 316. Morphia and ether, 315. Morphia, chloroform, and Indian hemp, 317. Opium and belladonna, 344. Faradisation: perhaps while patient is under influence of chloroform. Farinaceous food.—*Subsequently, to eliminate poison:*—Iodide of potassium, 31. Sulphur baths, 125. Sulphate and carbonate of magnesia, 141. Colchicum, 46.—*Prophylactic:*—Sulphuric acid drink. Attention to functions of skin and bowels. Avoidance of abuse of alcoholic drinks. —See *Colic; Paralysis* (section 9).

LEPRA.—From Λέπρα, a scaly state of the skin. Synon. *Common Dry Tetter; European Leprosy; Alphos; Psoriasis.*—The most obstinate and troublesome of all curable cutaneous diseases. A non-contagious squamous eruption; consisting of red and scaly circular patches, of various dimensions, scattered over different parts of body. Most frequently found in the neighbourhood of the joints, especially near the knee and elbow. By degrees, patches increase in size and number, and extend along extremities to trunk.

Varieties. When the patches are of moderate size, round and reddish and covered with thin white scales, affection known as *lepra vulgaris:* when eruption is smaller and whiter than the foregoing, and of long standing, disease termed *lepra alphoides:* when it is copper-coloured, result of syphilis, *syphilitic lepra.*

Treatment. *Locally:*—Warm baths. Alkaline baths, 121. Tar ointment (unguentum picis liquidæ, Phar. Lond. 1851).

Internally:—Aloes, gentian, and potash, 148. Pepsine and aloes, 155. Nitric acid, senna, and taraxacum, 147. Ammonia and rhubarb, 161. Arsenic, 52. Donovan's triple solution, 51. Sarsaparilla and corrosive sublimate, 27. Infusion of dulcamara. Tar capsules, 36. Tincture of cantharides, 226. Cod liver oil. Sulphur. Colchicum. Iodide of potassium, 31. Red iodide of mercury, 54. Red iodide of mercury and arsenic, 55. Harrogate waters, 466. Purton spa, 462. Barèges, 470. Simple nourishing food: avoidance of stimulants.

LEUCOCYTHEMIA.—From Λευκὸς, white; κυτος, a cell; and αἷμα, blood. Synon. *Leucocytosis; Leucæmia; White Cell Blood.*—A morbid state of the blood, in which the white corpuscles are greatly increased in number, while the red cells are much diminished. Connected with hypertrophy of one or more of the lymphatic glands, or of the spleen.

Symptoms. Anæmic pallor. Emaciation and debility. Abdominal swelling. Disordered respiration. Loss of appetite. Mental depression. Diarrhœa. Nausea. Hæmorrhage from nose, lungs, or stomach. Jaundice. Anasarca. Ascites. Prostration, ending in death.

Treatment. Bark, 22, 376. Iron, 21, 392, 394, 405. Quinine, 379, 380. Carbonate of ammonia. Cod liver oil, 389. Gallic acid, 103. Alkaline hypophosphites, 419. Iodide of potassium. Chloride of potassium. Nourishing food. Pepsine, 420. Stimulants. Sea air. Chalybeate mineral waters.

LEUCODERMA.—From Λευκὸς, white; δέρμα, the skin. Synon. *Leucopathia; Chloasma Album; Alphosis; Achroma.*—A rare condition; in which the skin is rendered white in various sized patches, from loss of cutaneous pigment. Occurs especially in negroes,—"the piebald negro." General health not affected.

LEUCORRHŒA.—From Λευκὸς, white; ῥέω, to flow. Synon. *Menstrua Alba; Fluor Muliebris; Catarrhus Genitalium; The Whites.*—A mucous discharge from the lining membrane of the uterine cavity, or of the vaginal canal. Hence, there may be uterine or vaginal leucorrhœa.—See *Endometritis; Vaginitis.*

LICHEN.—From Λειχὴν, moss. Synon. *Papulæ Siccæ; Lichemiasis Adultorum; Lichenous Rash.*—An obstinate and annoying papular affection of the skin. Recognised by the minute, hard, red elevations which it presents, and which are either distinct or arranged in clusters; by the tingling and irritation; and by the slight desquamation which follows.

Varieties. (1) *Lichen simplex:* Eruption of red inflamed papulæ, on face or arms, extending to trunk and legs. Slight fever; itching or tingling; eruption fades in about a week, when desquamation takes place. Disease apt to return every spring or summer in irritable constitutions. Sometimes mistaken for measles or scarlet fever.—(2) *Lichen pilaris,* or hair lichen: a modification of preceding; papulæ appear only at roots of hairs. Often due to stomach derangement, especially that from abuse of alcoholic drinks.—(3) *Lichen circumscriptus,* or clustered lichen: patches of papulæ, with well-defined margins and an irregularly circular form.—(4) *Lichen agrius,* or wild lichen: most severe form; ushered in by fever. Papulæ much inflamed; developed on an erythematous surface, which appears hot and painfully distended. In a short time, inflammation diminishes: papulæ become covered with furfuraceous desquamation; or their points are scratched off, surrounding skin becomes fissured into deep painful cracks, and sero-purulent fluid exudes, forming thin scaly crusts. Itching, tingling, and smarting intense; fever, nausea, headache, rigors, and other symptoms of constitutional disturbance. In mild cases, symptoms may subside and eruption die away in fourteen days: in severe varieties, disease frequently prolonged for months.—(5) *Lichen lividus:* distinguished by livid hue of papulæ, which chiefly form on limbs, and are not accompanied by fever.—(6) *Lichen tropicus,* or prickly heat: peculiar to tropical climates. Appears to be partly due to exposure during heat of day, before system has become acclimatized.—(7) *Lichen urticatus,* or nettle lichen: peculiar, inasmuch as its commencement is marked by occurrence of wheals, like those produced by bites of bugs or gnats. Wheals subside and leave papulæ, which are sometimes obstinate; both wheals and papulæ accompanied with itching, pricking, and tingling.

Treatment. *For all forms except 4th and 5th:*—Only simple remedies required. Tepid baths: mild laxatives: acidulous drinks: an unstimulating diet. Irritation to be relieved by acetate of lead

and hydrocyanic acid lotions, 263: or by equal parts of subacetate of lead and oxide of zinc ointments: or by glycerine and water, equal portions: or by corrosive sublimate lotion, 271: or by collodium, 285.

Lichen Agrius:—Steel and aloes, 154. Steel and sulphate of magnesia, 166. Pepsine and aloes, 155. Nitric acid and bark, 376. Arsenic, 52. Corrosive sublimate, 27. Turkish bath, 130. Mercurial vapour bath, 131. Sulphur baths, 125. Cod liver oil. Iodine. Iodide of potassium. Colchicum. Pepsine.

Lichen Lividus:—Quinine and mineral acids, 379. Quinine and steel, 380. Phosphate of iron, 405. Tincture of perchloride of iron and glycerine, 392. Cod liver oil. Generous diet: milk: malt liquors or wine.

LIPÆMIA.—From Λίπα, fat; αἷμα, blood. Fatty blood.—See *Piarhœmia.*

LOCKED-JAW.—Synon. *Trismus*, from Τρίζω, to gnash with the teeth.—See *Tetanus.*

LUMBAGO.—From *Lumbus*, the loins. Synon. *Rheumatismus Dorsalis; Rachirrheuma.*—See *Chronic Rheumatism.*

LUMBAR, PSOAS, AND ILIAC ABSCESS.—Chronic collections of pus in these situations generally due to caries of bodies of dorsal vertebræ. More seldom, are caused by general debility without spinal disease. Occur especially in strumous subjects.

Symptoms. Quantity of pus usually large. When it points in the loins, generally on one side of spine, it is known as *lumbar* abscess. When in the groin, below Poupart's ligament, having travelled along the course of one or both psoæ muscles, it is termed *psoas* abscess. When above Poupart's ligament, it is called *iliac* abscess. In exceptional cases, the abscess has burst into peritoneum, large intestines, or pleura. Very rarely the pus has been absorbed.

Treatment. When a permanent cure cannot be hoped for, it is unwise to interfere unless there be pain or much inconvenience. If diagnosis of spinal disease be uncertain, or if there be much pain or hectic fever, or if the abscess appear likely to burst, its contents may be let out by a valvular incision and the opening closed. Puncture with trocar and canula sometimes advised. In all cases, improvement of general health necessary. Bark. Ferruginous tonics. Good diet. Cod liver oil. Sea air.

LUPUS.—From *Lupus*, a wolf,—owing to its destructive character. Synon. *Ulcus Tuberculosum; Noli me Tangere.*—A destructive skin disease; commencing in the form of one or more indolent, soft, dull-red tubercles, which become covered with scabs, have a tendency to heal spontaneously, and always leave a scar. Most common on the face: occurs in the young or middle-aged: and is more often met with in women than men.

Varieties. Two forms,—*Lupus non-exedens*, and *Lupus exedens.* In the *first*, little or no ulceration, yet the tubercles leave deep cica-

trized pits behind them; while when it spreads rapidly and superficially, the skin is left crossed by white scar-like ridges and bands. The *second*, very destructive; attacks the nose more frequently than any other region of body. Extent of parts which it destroys varies; sometimes the whole nose being eaten away, sometimes only the point.—Both varieties may be present in same case: disease on alæ nasi consisting of lupus exedens, while that on face is of non-exedens form. Moreover, whether ulceration be present or not, the disease is essentially the same.

Treatment. *Internally*:—Quinine, 379. Quinine and steel, 380. Quinine, steel, and arsenic, 381. Arsenic, 52. Cod liver oil, 389. Iodide of iron and cod liver oil, 390. Phosphate of iron, 405. Opium. Nourishing food. Exercise in pure air.

Locally:—Free destruction of entire tubercle or ulcer by some potential caustic; repeating application until a healthy surface results. Chloride of zinc, rubbed in, or applied in paste, 197. Potassa fusa. Arsenic and calomel powder, 203. Acid solution of nitrate of mercury, 195. Pure carbolic acid. Chromic acid, 196.

MALACOSTEON.—From Μαλακὸς, soft; ὀστέον, a bone. Synon. *Mollities Ossium.*—See *Osteomalacia.*

MALIGNANT VESICLE.—Synon. *Charbon.*—A furunculoid disease conveyed from cattle to man by inoculation.

Symptoms. A pimple or vesicle, which usually forms on a surface habitually exposed. Swelling and discoloration. Severe carbuncular inflammation: enormous swelling: brawny hardness: loss of vitality: blackness. Fœtid breath. Embarrassed respiration. Great prostration. Death with symptoms of general blood poisoning.

Treatment. Early incisions. Extirpation. Scarifications, with application of caustics. Potassa fusa. Acid solution of nitrate of mercury. Actual cautery.

Sulphite of soda or magnesia, 48. Bark. Quinine. Opium. Tar capsules, 36. Essence of beef, 2, 3. Cream or milk. Raw eggs. Alcoholic stimulants. Current of pure air over bed.

MAMMARY ABSCESS.—Synon. *Mastodynia Apostematosa; Milk Abscess; Abscess of the Breast.*—May be acute or chronic: the former a result of active inflammation. Forms either in substance of gland, or between gland and skin, or between gland and chest walls.

Symptoms. *Acute*:—Occurrence of rigors during progress of inflammation. Engorgement of breast. Deep-seated or diffused burning pains: throbbing, and sense of heavy weight. Formation of a painful point. Fluctuation. Symptoms, general and local, most severe in intra-glandular abscess.

Chronic:—Most important because the lump or knot in breast is apt to be mistaken for a malignant tumour. Matter forms very slowly: may be result of scrofula or derangement of general health, without any inflammatory symptoms. Occurs in puerperal and in sterile women. First indications, are hardness of gland and soreness about

nipple. An imperfectly circumscribed and uneven tumour can be detected: fluctuation indistinct, often difficult to appreciate, owing to thickness of plastic effusion round the purulent collection. Nipple may be retracted. Adhesion occurs between tumour and skin.

Treatment. Tonics and stimulants. Nourishing food: malt liquors. Introduction of grooved needle, if diagnosis be doubtful. Free puncture at most depending point. Drainage tube. Poultices. Pressure with long strips of strapping. Care necessary to prevent sinuses from burrowing. If they form, pressure or stimulating injections can be tried; or setons should be passed through them. Attention to digestive and uterine organs.

MAMMARY HYPERTROPHY.—Enormous hypertrophy of one or both breasts may occur in single and married women. Usually one gland first begins to enlarge, and slowly increases in size. At the end of a year or more, opposite mamma gets affected. No inflammatory symptoms, induration, or pain. Enlargement becomes burdensome, and unsightly. Affected gland may project firmly from thorax; or it may hang flabby and loose—pendulous breast. In many cases, the uterine functions are imperfectly performed. General health usually impaired. Occasionally, perhaps, the result of masturbation. The worst case which the author has seen, was attributed to imperfect sexual intercourse: both breasts were affected, reaching to the umbilicus.

Treatment. Very unsatisfactory. Improvement of general health. Attention to uterine functions. Pressure with strips of ammoniac and mercury, or mercurial, or litharge, or belladonna plaster; or by spring pads, or Dr. Arnott's air cushion. Where patient is pregnant, a hope of cure may be entertained when lactation is set up. Various preparations of iodine have been largely tried: seldom with any benefit. The clitoris has been excised. In very severe cases, one or both breasts have been amputated.

MAMMARY TUMOURS.—The female breast may be the seat of several varieties of tumour. Some are *simple;* and, with one or two exceptions, are composed of elements more or less resembling those entering into the structure of the normal gland. Others are *malignant;* and are formed of elements foreign to the healthy organism.

1. Lacteal Tumour.—From *Lac*, milk. Synon. *Galactocele* (Γάλα, milk; κήλη, a tumour); *Lactocele; Milk Tumour.*—A distension of one or more lacteal tubes, owing to occlusion of the orifices; or a rupture of a milk duct, with escape of contents into surrounding connective tissue. Occurs during lactation.

Symptoms. A cystic growth, varying in size from that of a walnut to that of an orange, can be felt; which when recent is elastic and fluctuating. As the serous portion of the milk gets absorbed, the tumour becomes firmer and feels almost solid. Absence of pain. General health unaffected. Enlargement commonly discovered by accident: patient alarmed, fearing cancer. Very rarely the earthy salts of the milk form a small concretion,—*lacteal calculus.*

Treatment. Free puncture, keeping the wound pervious until all discharge ceases. Sometimes a cure cannot be effected until gland tissue becomes inactive,—until infant is weaned. If slight inflammation and suppuration follow the puncture, there will be no need for anxiety: a cure will occur as in abscess.

2. Fatty Tumour.—Masses of fat may be developed within the breast, or in front or behind it. They give rise to an appearance of mammary hypertrophy. Such tumours grow slowly, sometimes attain a weight of several pounds, and are only inconvenient from their bulk.

3. Enchondromatous and Osteoid Growths. — Cartilaginous and bony tumours have been found in the breast on a very few occasions.

4. Fibro-Plastic Growths.—Synon. *Recurrent Fibrous Tumour.*—Of very rare occurrence. The tumour may attain a large size: the integuments ulcerate, giving exit to a fungating mass which often bleeds readily. The lymphatics are not involved. General health good. After removal there is great probability of a recurrence of the disease,—perhaps on five or six or more occasions.

5. Hydatid Cysts.—Cysts containing entozoa have been found in the breast. Echinococci to be detected on a minute examination of the fluid contents of the sacs. Sometimes curable by puncture of parent cyst and compression; or by withdrawal of parent cyst through a free incision. Occasionally extirpation must be resorted to.

6. Chronic Mammary Tumour.—Synon. *Adenoid Tumour; Adenocele* (Ἀδήν, a gland; κήλη, a tumour); *Pancreatic Sarcoma; Partial Hypertrophy; Mammary Glandular Tumour; Hydatid Disease of Breast; Sero-cystic Sarcoma.*—A tumour of the breast, which generally commences in healthy women between the time of puberty and the thirtieth year: single, more liable than married women. Growth slow: an enormous size may ultimately be attained. Sometimes remains stationary for a long time, and then rapidly increases in bulk; sometimes gradually diminishes, perhaps owing to absorption of fluid contents of cysts. Never disappears entirely. May be due to mechanical injury. One variety of mammary tumour is dense, compact, lobulated, and provided with a fibrous capsule: ducts and sinuses are developed through the new growth. In another form, there are cysts with growths attached to their walls, and floating in fluid. In a third group, dilated ducts get converted into cysts, with growths of gland tissue springing from their sides.

Symptoms. The tumour begins as a small, movable, nodulated growth: it appears isolated from gland tissue: is not painful: does not involve skin: no enlargement of axillary glands. As the foreign body grows, the true breast may atrophy. Rate of growth very variable. When large, the integuments may ulcerate: occasionally tumour protrudes through ulceration as a fungating mass.

Treatment. Remedies to induce absorption only injure the general health. When the growth is increasing, excision should be resorted to. Recurrence is rare.

7. Mucous Cysts.—Consist of dilated and expanded gland ducts filled with mucus and epithelium. There may be one or several cysts, in one or both breasts. The growths seldom attain a greater size than that of a filbert. Most common after child-bearing period is over. A cure can often be effected by puncture and pressure. This failing, and irritation arising, the breast will have to be amputated.

8. Malignant Tumours.—Cancer of the breast may be of the nature of scirrhous, medullary, or colloid: the first by far the most common. Always primary. Only one mamma generally affected. Frequently developed between the ages of forty and fifty. The tendency of the disease is to increase, to ulcerate, to cause great pain, to affect the lymphatics and glands, to diminish health and flesh and strength, to set up the cancerous cachexia, to lead to secondary deposits in distant organs, and to destroy life in less than four years from commencement.

The male breast occasionally becomes the seat of malignant disease.—See *Cancer*.

MAMMILLARY DISEASES.—The nipple, or mammilla (dim. of *Mamma*, the breast), may be the seat of certain morbid processes.

The chief are:—*Chronic eczema* and *psoriasis*. There are excoriations covered with rather thick crusts. Aggravated by pressure against stays. May usually be cured by lime liniment, zinc ointment, or lotions of sulphate of zinc. In obstinate cases, arsenic, 52.

Inflammation of nipple very common at commencement of lactation. Exquisitely painful ulcers or abrasions form,—"fissures," "chaps," or "cracks." The acute suffering sometimes impairs general health; there is constant dread, mental depression, loss of appetite, restless nights. The disease may often be prevented by bathing nipple night and morning, during last few weeks of pregnancy, with astringents,—Port wine, brandy, or saccharated lime water. Numerous curative measures recommended; the most efficient being,—Collodium, 285. Solid nitrate of silver, but it causes great pain on first application. Lead or zinc lotions, 264. Balsam of Peru and spermaceti ointments, 306. Glycerine, or almond oil. Lime liniment. Borax and glycerine lotion, 268. Dusting with powdered spermaceti, or oxide of zinc, tied up in a muslin bag. Nipple to be well-dried after nursing: child not to be allowed to lie with it in the mouth, after a proper meal. Nipple-shields, of glass or boxwood or vulcanized India rubber, to afford protection during suckling. Mucous membrane of infant's mouth to be examined, so that any aphthous or other morbid state may be rectified. Other means failing, infant to be nursed only from sound breast.

Malignant disease may attack either the male or female nipple. Early extirpation is the only remedy.

MAMMITIS.—From *Mamma*, the breast; terminal *-itis*. Synon. *Mazoitis; Mastitis; Inflammatio Mammæ*.—Inflammation of the breast may be acute or chronic. Generally occurs during lactation:—from cold; irritation of sore nipple; external injury; too poor a

diet; inattention to suckling at proper intervals; general debility; or sympathy with gastric, intestinal, hepatic, uterine, ovarian, or renal irritation.

Symptoms. When *acute*:—Considerable pain, swelling, induration. Shivering, fever, quick pulse, loaded tongue, delirium. Secretion of milk soon checked. Suppuration commonly results.

In *chronic* form:—Comes on insidiously. Enlargement of gland and induration: the hardness much less than in scirrhus. Often ends in suppuration. May follow acute inflammation; or may arise in women of strumous constitution quite independently of child-bearing.

Treatment. *Acute*:—Antiphlogistic remedies not advisable; though rapid cures are said to have been effected by saline purgatives, antimonials, and leeches. Mild aperients. Iodide of potassium, 31. Aconite and opium, 332. Fomentations. Hemlock poultices. Linseed poultices, with application of extract of belladonna. Three or four leeches, where there is great congestion and the powers of life are not enfeebled. The breast to be supported. Arm to be kept quiet, by a sling or bandaging to the side. Infant to be weaned at commencement. If milk accumulates and causes painful distension, it must be drawn off with breast-pump. Incision, as soon as there is fluctuation. Tonics, and good nourishing food.—See *Mammary Abscess.*

Chronic:—Ammonia and bark, 371. Quinine and mineral acids, 371. Cod liver oil. Nourishing food. Support and pressure by strips of strapping, belladonna plaster, or bandage. Abscess to be opened at most depending point.

MASTODYNIA.—From Μαστὸς, the breast; ὀδύνη, pain. Synon. *Mazodynia; Mastalgia; Neuralgia of Mamma.*—The female breast is not unfrequently the seat of distressing pains, without any structural disease of the gland.

Symptoms. Occasionally there is slight heat and more or less swelling of affected breast. Sometimes the lobules feel rather firmer than is natural. More commonly, the gland is healthy to the touch. The pain may be of a wearying aching character: it may be very acute, liable to exacerbations, and perhaps periodic,—like neuralgia elsewhere. Very frequently due to some ovarian or uterine irritation. In many women the breasts are irritable at the commencement of each menstrual period. General health seldom good. Nervous temperament. Loss of appetite, constipation, restless nights, anxiety.

Treatment. Cure of the disorder on which the pain depends. Removal of any ovarian or uterine irritation. Attention to diet, exercise, clothing.

Quinine, 379, 411. Ammonia and bark, 371, 372. Aconite, 330, 374. Quinine and belladonna, 383. Cod liver oil. Pepsine, 420. Castor oil. Iodide of lead and belladonna in vaginal pessaries, 423. Friction of breasts with belladonna liniments, 265, 281. Support by strapping or bandage, if breast is pendulous. The breast has been amputated; the pain returning in cicatrix, or in opposite gland.

Young infants, and boys or girls about the time of puberty, are liable to enlargement and tenderness of breasts. Sometimes there is secretion of milk. The disorder subsides spontaneously, provided irritation is not kept up by application of iodine and similar drugs. The author has more than once seen abscess in breast of infant, from the nurse using friction with oil "to rub the milk away."

MEASLES.—From the Saxon *Mesall*, or *Mysel*, leprous: *Meazel*, a leper, or diseased person. Synon. *Morbilli; Rubeola.*—A continued infectious fever, preceded by catarrh, accompanied by a crimson rash, and often attended or followed by inflammation of the mucous membrane of the organs of respiration. Some authors divide measles into two grades,—the *morbilli mitiores*, and *morbilli graviores;* but the latter only differs from the former in its greater severity, and in the fact that the eruption assumes a dark purple colour.

Symptoms. After a period of incubation, varying from 10 to 15 days, there are lassitude, shivering, pyrexia, and catarrh; the conjunctivæ, Schneiderian membrane, and mucous membrane of the fauces, larynx, trachea, and bronchi being much affected. Swelling of eyelids, with eyes suffused and watery, and intolerant of light; sneezing; dry cough, hoarseness, and severe dyspnœa; drowsiness; great heat of skin; together with frequent and hard pulse. The eruption comes out on 4th day of fever, and fades on 7th: it consists of dots which coalesce into small blotches, raised above the skin, and often of a horse-shoe shape. Fever does not abate on appearance of eruption. Pulmonary complications are to be feared, especially in winter and spring months. Occasionally, life endangered by the occurrence of laryngitis, cancrum oris, severe otitis, epistaxis, acute tuberculosis, or acute desquamative nephritis.

Treatment. Confinement to bed in a moderately warm room. Pediluvia. Milk diet; acid or mucilaginous drinks. Castor oil. Rhubarb and magnesia. Cream of tartar. Solution of acetate of ammonia. Effervescing saline mixtures. Spirit of nitrous ether. Carbonate of ammonia. Alcoholic stimulants, if there be depression. Ipecacuanha and morphia, if cough be troublesome. Colchicum. Sponging with vinegar and water. Inunction with oil or lard.—Bark; quinine; steel; cod liver oil; and nourishing food during convalescence.

MEDULLARY CANCER.—From *Medulla*, pith or marrow. Synon. *Encephaloid Cancer.*—'Εγκέφαλος, the brain.—These cancers are of two kinds—soft and firm; the former most frequent. In either condition they are found as separable tumours, or as infiltrations. As *separable* tumours, when occurring in testicle, breast, eye, intermuscular and other spaces in limbs; as *infiltrations*, when occupying the substance of uterus, alimentary canal, serous membranes, and bones. In either form their course towards a fatal career is rapid: average duration of life, from patient's first observation of disease, little more than two years.—See *Cancer.*

MELANOID CANCER.—From Μελανόω, to grow black. Synon. *Carcinoma Melanoticum; Fungus Melanodes; Black Cancer.*—

Consists generally of medullary cancer, modified by the superaddition of a black pigment. Scirrhus sometimes becomes associated with melanosis, and more rarely epithelioma does so.—See *Cancer*.

MELANOSIS. — From Μέλας, black; *νόσος*, disease. Synon. *Nigritudo; Black Tubercle.*—A rare disorder, characterised by the deposition in various tissues of the body, of a black or dark-brown substance.

Melanotic formations may take place in various parts of body, may present much variety of form, and may owe their production to different agents. They are divided into two great groups (Carswell):—(1) True Melanosis, of which there is only one kind. (2) Spurious Melanosis, of which there are three kinds—*a*, that arising from the introduction of carbonaceous matter; *b*, from the action of chemical agents on the blood; and *c*, from the stagnation of the blood.

1. True Melanosis.—Has its seat most commonly in connective and adipose tissues; but it is also found, though rarely, in mucous and serous membranes, in tendons and cartilages, as well as in osseous system—particularly bones of cranium, ribs, and sternum. The organs it most commonly affects are liver, lungs, spleen, pancreas, lymphatic glands, brain, eye, kidneys, testes, uterus, ovaries, rectum, and mammæ. It is sometimes found associated with various forms of cancer; and it has been met with in the false membranes formed on serous surfaces (Andral). Melanotic disease has a great tendency to extend to different parts of the body through the lymphatic system.

Symptoms. In subcutaneous melanosis the tumours or nodules remove all difficulty as to diagnosis.—When internal organs are alone affected, the symptoms are obscure. Gradual sinking of the vital energies. A cachectic habit of body. Dusky or ash-coloured countenance. Emaciation. Dropsy. Night-sweats. Gradual exhaustion.

It is still a matter of uncertainty whether true melanosis is simply medullary cancer modified by the formation of black pigment in its elemental structures.

Treatment. The symptoms to be combated as they arise. Cholagogue purgatives. Bark and mineral acids. Ferruginous tonics. Nourishing diet. Sea air.

2. Spurious Melanosis.—(1) *From Introduction of Carbonaceous Matter.*—The lungs—it occurs only in these organs—present a black carbonaceous colour; bronchial glands blackened; pulmonary tissue indurated and friable, infiltrated with black serum, and often broken down into irregular cavities. The discoloration has its origin in inhalation of carbonaceous products of ordinary combustion. Is chiefly found in lungs of those who have worked in coal mines.

(2) *From Action of Chemical Agents on the Blood.*—In digestion of coats of stomach by gastric juice after death, and in poisoning by acids, the blood contained in gastric capillaries, as well as that extravasated, will generally present a blackish tint. Inhalation of sulphuretted hydrogen gas will also darken the blood in the intestinal capillaries.

(3) *From Stagnation of Blood.*—Retarded or impeded circulation may produce black discoloration of the blood. When blood ceases to circulate in capillaries of an organ it coagulates, the serum and salts become absorbed, and a black substance remains. This probably consists of fibrin and hæmatin. Occurs in the digestive and respiratory organs.

MELÆNA.—From Μέλας, black. Synon. *Dysenteria Splenica; Fluxus Splenicus; Dejectiones Nigræ.*—When the intestinal evacuations contain blood, whether this comes from vessels of stomach or only from those of intestines, there is said to be *melæna.* The evacuations are often black, and sometimes resemble tar; but this dark appearance is by no means constant, and does not occur if the blood comes away too quickly to be acted upon by intestinal juices. Cirrhosis of liver, or any disease which produces obstruction of portal system, necessarily gives rise to congestion of gastric and intestinal veins; a condition often terminating in extravasation of large quantities of blood that are thus expelled. Amongst other less common causes are enteritis, dysentery, intussusception, simple and carcinomatous ulcerations, aneurismal and other tumours &c. Not to be confounded with bleeding from rectum, owing to the presence of a polypus or of hæmorrhoids.

Treatment. When there is gastric disease, see *Hæmatemesis.* In other forms:—Calomel and jalap, 140. Podophyllin, 160. Turpentine, 102. Gallic acid, 103. Mineral acids and bitters, 378.

MELITURIA.—From Μέλι, honey; *οὖρον*, urine. Sweet urine.—See *Diabetes Mellitus.*

MENORRHAGIA.—From Μῆνες, the menses; *ῥήγνυμι*, to burst out. Synon. *Paramenia Profusa; Menstrua Superflua; Menorrhœa; Profuse Menstruation.*—An abnormal increase of the catamenia.

Causes. May arise from diseases producing anæmia:—Tuberculosis; Bright's disease; affections of spleen; undue lactation. Also from:—Excitement at monthly period. Excessive sexual intercourse. Metritis and ovaritis. Relaxation of uterine tissue. Uterine and ovarian tumours &c.

Treatment. Gallic acid; cinnamon; sulphuric acid;—either remedy alone or in combination, 103, 104. Nitric acid. Solution of corrosive sublimate, 27. Ergot of rye. Ammonio-sulphate of iron, 116. Turpentine. Opium. Indian hemp. Ipecacuan. Savin. Acetate of lead. Oxide of silver. Arsenic. Infusion of digitalis.

Local remedies:—Ice over pubes. Introduction of ice into vagina. Vaginal injections of tannic acid or of matico. Astringent vaginal pessaries, 423. Galvanism. Plugging os uteri with sponge, 426. Plugging vagina with cotton wool. Styptic rod of tannin, 424. Cold water enemata.—See *Uterine Hæmorrhage.*

METRITIS.—From Μήτρα, the womb; terminal *-itis.* Synon. *Febris Uterina; Hysteritis; Inflammatio Uteri.*—Inflammation of

the substance of the unimpregnated uterus a rare disease. Muscular tissue of the body may be alone affected, or that of cervix, or that of whole organ will be involved.

Symptoms. Acute metritis may set in suddenly with rigors followed by fever. More commonly, comes on gradually. Sense of fulness, weight, and heat about pelvis. Throbbing, with tenderness, about pubes and groins and perineum. Irritability of bladder. Nausea and vomiting. Diarrhœa with tenesmus. After first day, acute paroxysms of uterine pain. A mucous, sometimes sanguineous, discharge. Suffering relieved by recumbent posture.—Acute symptoms subside in about seven days. Resolution often occurs. But occasionally, one or more abscesses form in uterine parenchyma: or subacute inflammation follows, pelvic areolar tissue getting involved: or fatal gangrene sets in: or it leaves hypertrophy of uterus, induration of labia, abrasions, and leucorrhœa.

Treatment. *Acute stage:*—Complete repose. Simple diet: cooling drinks; iced water. Hot hip baths. Leeches to labia uteri. Opium and belladonna pessaries, 423. Ice; sinapisms to epigastrium; a few drops of chloroform on sugar,—for relief of gastric irritability. Mucous diarrhœa to be checked by opiate enema or suppository, 339, 340.

Subacute stage:—Iodide of potassium and aconite, 31. Corrosive sublimate, 27. Mercury, or iodide of lead, pessaries, 423. Potassa fusa to indurated labia. Nourishing food. Warm hip baths. Moderate exercise in pure air.

MILIARIA.—From *Milium*, millet. Synon. *Miliary Fever; Miliaria Sudatoria; Exanthema Miliaria; Millet Seed Rash.*—A vesicular eruption; vesicles the size of millet seeds, containing a slightly opaque fluid, and surrounded by a narrow red margin. Occurs during progress of diseases attended with offensive sweating,—rheumatic fever &c. Miliary eruptions have occasionally been epidemic (miliary fever): attended with much danger.—See *Sudamina.*

MINERAL DEGENERATION.—Every texture in the body is probably liable to mineral or earthy degeneration. Occurs most frequently in the coats of arteries and in cartilages. Tubercular and cancerous growths sometimes undergo this change, and so may fibroid tumours of uterus.

(1) It is important to distinguish between ossification and calcification. *Ossification* does sometimes take place, with formation of dense or compact, and spongy or cancellated tissue, and occasionally even of periosteum.

(2) In *calcification* or *petrifaction* there is a deposit of the salts of lime in the intercellular substance. The coats of large arteries are often found brittle from this cause. Sometimes plates of mineral matter are discovered embedded in the middle coat of the vessels, rendering them hard and rigid tubes. So the gall-bladder, pericardium &c. have been found converted into calcareous shells.

MOLLITIES OSSIUM.—From *Mollis*, soft: *Os*, a bone. A morbidly flexible condition of the bones, owing to an insufficiency of phosphate of lime.—See *Osteomalacia.*

MOLLUSCUM.—From *Molluscum*, a fungus that grows on the maple tree. Synon. *Ochthiasis; Acné Molluscoide.*—A rare cutaneous disease: of the order *Tubercula.* Consists of small tumours; varying in size from that of a pea to that of a pigeon's egg, occasionally of a brown colour, sometimes growing from a broad base, and sometimes from a narrow peduncle. Two forms, one contagious the other not. Contagious molluscum very rare, severe, and chronic. Non-contagious molluscum is less severe; does not produce so much irritation as opposite kind; after a time the tumours neither grow nor alter, but remain stationary for life. A cure can only be effected by snipping off the tumours, or by incising them and applying nitrate of silver.

MORBILLI.—The dim. of *Morbus*, a disease: *Μόρος βίον*, the fate of life, i.e. death.—See *Measles.*

MUSCÆ VOLITANTES.—From *Musca*, a fly: *Volito*, to fly about. Synon. *Flocci Volitantes.*—Little specks, or floating black spots, which fly over the field of vision. Due to minute floating bodies, probably near the retina. Their presence generally gives rise to very unnecessary alarm. Quite compatible with lasting good sight.

MUSCULAR TUMOUR.—Synon. *Phantom Tumour.*—From some peculiar action of diaphragm and other abdominal muscles, an appearance results exactly resembling that caused by a large foreign body. Sometimes simulates pregnancy,—*Spurious pregnancy; Grossesse simulée par illusion pure*, of French authors. Has been mistaken for ovarian tumour.—An erroneous sensation of a small tumour often communicated to the hand by irregular contractions of recti muscles, in sensitive subjects.

Symptoms. Abdominal cavity appears to be entirely or partially filled by a foreign body, or by pregnant uterus. Swelling may be firm and unyielding; or it changes its position from day to day; or appears movable and as if attached by a pedicle. Sometimes, tenderness on pressure. Borborygmi on auscultation. Resonance on percussion, unless there be much fat. Arching forwards of lower dorsal and upper lumbar vertebræ. Swelling occasionally melts away under influence of prolonged manipulation: always dispersed on placing patient under full influence of chloroform.

General health usually bad. Anæmia. Hysteria. Irregularity of uterine functions. Dyspepsia. Ovarian irritation: uterine disease.

Treatment. Improvement of general health. Cure of uterine or ovarian disease.—Bark and mineral acids, 376. Quinine, 379. Quinine and steel, 380. Quinine and nux vomica, 387. Steel and aloes, 393, 404. Strychnia and steel, 408. Zinc and nux vomica, 409. Valerianate of zinc, 410. Hypophosphite of soda, 419. Cod liver

oil. Nourishing diet.—Galvanism. Sea bathing. Shampooing. Support by abdominal belt or bandage.

MYALGIA.—From Μῦς, a muscle; ἀλγέω, to suffer pain.—Stiffness, cramp, soreness, or pain, in the voluntary muscles or their tendinous prolongations. Arises from fatigue.—Muscles of trunk more commonly attacked than those of extremities; of abdominal walls, than of thoracic; and of legs, than of arms. Tendinous parts more frequently the seat of pain than the fleshy; the portions of tendons usually affected being the spot where they are inserted into bone, or where the tendinous joins the muscular fibre (Inman).

Myalgia common during progress of scurvy, tuberculosis, cancer, chlorosis, leucocythemia, chronic dysentery or diarrhœa, prolonged lactation, exhausting uterine disease &c. Also during convalescence from hæmorrhage, severe inflammation, parturition, continued fevers &c.

Symptoms. Pain: severe in proportion to the general debility: aggravated by any movement which calls affected muscle into play: seldom complained of in the morning after a good night's rest, but soon following upon a few hours' exertion, and gradually increasing towards night. General health more or less depressed. Skin cool. Pulse natural, or feeble and somewhat quickened. Appetite good. Tongue clean.—In exceptional cases,—fever; night sweats; loss of appetite; impaired digestion; constipation; a disinclination for work of any kind; severe mental depression.

Treatment. Quinine, 379. Quinine and steel, 380. Cod liver oil, 389. Steel and cocoa-nut oil, 391. Steel and glycerine, 392. Steel and pepsine, 394. Phosphate of iron, 405. Hypophosphite of soda and bark, 419. Morphia, chloroform, and Indian hemp, 317. Subcutaneous injection of morphia, or chloroform, 314. Ether spray. Linseed poultices, with belladonna and opium, 297. Friction with belladonna liniment, 281. Partial rest of affected muscle to be ensured by bandage; strips of belladonna or opium plaster. Galvanism. Shampooing.—Animal food: milk, or cream: raw eggs: wine, or malt liquors, or whisky, brandy &c.

MYCETOMA.—From Μύκης, ητος, the mushroom. Synon. *Fungus Foot of India.*—A destructive parasitic disease. The mucedinous fungus (*Chionyphe Carteri*) eats its way into the metatarsal and tarsal bones, and ultimately into lower extremities of tibia and fibula. Numerous fistulous channels result, becoming filled with rounded black masses of fungus. Observed only in natives of India, who go about with naked feet. Sporules of the fungus get introduced beneath the cuticle, through some scratch or abrasion. Amputation seems to be the only remedy of any use.

MYELITIS.—From Μυελὸς, marrow; terminal *-itis.* Synon. *Spinodorsitis; Rachialgitis; Inflammatio Medullæ Spinalis.*—Inflammation of the substance of the spinal cord is a rare disease. Sometimes co-exists with pneumonia, gastro-enteritis, and continued fever. May

be excited by cold, damp, wounds, contusions &c. Often ends in softening, or suppuration.

Symptoms. Not very uniform. If *cranial* portion of cord be affected:—Deep-seated headache; convulsive movements of head and face; inarticulate speech; trismus; difficult deglutition; impeded spasmodic breathing; irregular action of heart; hemiplegia, or other form of paralysis. If about to prove fatal in acute stage, great prostration; increased dyspnœa; involuntary escape of excretions. When whole thickness of cord above origin of phrenic nerves is attacked, death occurs rapidly from cessation of respiratory movements.—Inflammation of *cervical* portion:—Difficult deglutition; impossibility of raising or supporting head; acute pain in back of neck; urgent dyspnœa; sense of pricking and formication in arms and hands; paralysis of upper extremities.—Of *dorsal* region:—Pain over affected part; numbness or pricking sensations in fingers and toes; convulsive movements of trunk; paralysis of arms and lower extremities; dyspnœa; great palpitation.—Of *lumbar* portion:—Marked paralysis of lower extremities at early period; abdominal pain, with sensation as of a cord tied tightly round body; convulsions; retention, followed by incontinence of urine, owing to paralysis of bladder; involuntary stools, from paralysis of sphincter ani.

Pain in affected part of cord less severe than in meningitis: increased by application of heat (as of hot sponge), and by pressure. Bed-sores very apt to form.

Treatment. Calomel and jalap, 140, 159. Jalap and senna, 151. Castor oil and turpentine enema, 190. Corrosive sublimate and sarsaparilla, 27. Iodide of potassium, 31. Great care necessary to keep patient dry and clean. Bladder to be emptied by catheter, unless urine be passed freely. Bed-sores to be prevented by amadou plaster, water-bed &c.

MYOCARDITIS.—From Μῦς, a muscle; καρδία, the heart; terminal *-itis*. Synon. *Carditis.*—Inflammation of muscular substance of heart.

Seldom occurs as a distinct affection: generally combined with pericarditis, or endocarditis, or both. Walls of left ventricle suffer more frequently than other parts.—Results,—induration of muscular structure from deposit of lymph; formation of abscesses; aneurismal dilatation of walls of heart; softening of heart, and possibly, rupture.

MYOPIA.—From Μύω, to contract; ὤψ, the eye. Synon. *Hypometropia; Short-sightedness; Near-sightedness.*—When the distance at which ordinary type can be easily read is less than twelve inches, the vision is said to be myopic. Near objects are seen distinctly. Myopia most frequently arises from too great a convexity of the cornea, or of the crystalline lens, or both. May be owing to a lengthening of the eyeball: to an undue density of any or of all the refractive media. The rays of light from objects at the usual distance are brought to a focus before they reach the retina, instead of being concentrated upon it. Sometimes associated with strabismus. Myopia

rarely decreases as age advances, though popularly believed to do so. It is often hereditary.

In many cases of short-sightedness the iris is either preternaturally contracted, or it possesses unusual irritability. This occurs especially in individuals of a very nervous temperament. Exposure to bright light aggravates this condition. Snow-blindness chiefly due to it; consisting, in a great measure, of excessive contraction of pupil.

Treatment. Avoidance of over-work, examination of minute objects &c., especially by gas light.—Well adjusted double concave glasses or spectacles: single eye-glasses are bad. The greater the degree of short-sightedness, the greater must be the concavity of the glasses. The glasses had better be worn only when required. Heat and congestion about the eyes to be relieved by the eye douche. Where the iris is unusually irritable belladonna gives relief. Where there is disease of choroid, a prolonged course of corrosive sublimate in small doses.

MYOSITIS.—From Μῦς, a muscle; terminal *-itis*. Synon. *Myitis; Sarcitis; Inflammatio Musculorum.*—Inflammation of muscular fibre is a rare affection. May occur from injury, over-exertion, disease of adjoining textures &c.

Symptoms. Pain: greatly aggravated by any movement of affected muscle. Heat and swelling; the latter often distinct, simulating a tumour. Symptomatic fever. May terminate in induration; or softening; or suppuration; or even gangrene.

Treatment. Hot fomentations. Rest. Opium. Nourishing food, in proportion to the failure of general strength.

NÆVUS.—As if *Gnœvus*, from γενέω, whence γίγνω, to be born; because the blemish is congenital. Synon. *Nævus Maternus; Mother's Mark; Erectile* or *Vascular Tumour; Aneurism by Anastomosis.*—A growth formed by enlarged and dilated arteries, veins, or capillary vessels.

Symptoms. *Arterial* nævi more commonly begin in youth than infancy. The diseased vessels become enlarged and elongated and tortuous; forming a tumour of irregular shape, which is spongy and compressible and pulsating. A loud superficial bruit is audible.—*Venous* nævi give rise to irregular tumours of a purple colour; which feel doughy, and are diminished in size by pressure. They may be as small as a nut, or as large as an orange.—*Capillary* nævi most common. Usually congenital. Commence as vivid red or purplish spots, which gradually spread. May affect the skin and subcutaneous areolar tissue of any part: more commonly met with on scalp or face or neck, than on back or buttocks or organs of generation.—Nævi of a *mixed* character not rare.

Treatment. When small, producing no disfigurement, and not increasing in size they are best left alone. Occasionally, spontaneous cure occurs. Interference being necessary attempts must be made,—To excite adhesive inflammation so as to coagulate the blood and ob-

literate the vessels; or to destroy the growth by caustics; or to effect removal by knife or ligature.

(1) *To excite adhesive inflammation:*—Vaccination, making several punctures at circumference of spot and one or two on surface, so as to produce a confluent vesicle. Compression; by a piece of sheet-lead and bandage, or painting with collodium, or by the finger applied for some hours. Frictions with compound iodine, or croton oil, or red iodide of mercury, or tartarated antimony ointments. Congelation. Dotting the surface with a small and pointed actual cautery. Setons; passing several threads with a common sewing-needle in all directions across the tumour, and leaving them until suppuration is excited. Breaking up substance of growth, subcutaneously, by a common dissecting needle. Injection of a few drops of tincture of perchloride of iron with a sharp-pointed syringe.—Passing a needle under the growth, when small, and twisting a thread around it so as to cause considerable pressure, and allowing it to remain for forty-eight hours (Fergusson).—Introduction of two needles, at right angles to each other, under the mass, and winding of a ligature round the whole. Immediate withdrawal of needles; ligature to be untied in four hours. A scab forms, which drops off in ten or fourteen days; no suppuration nor open sore. Without destroying the nævus, sufficient obstruction is caused to allow the blood in the tissue to get consolidated (Cooper Forster).

(2) *Destruction by caustics:*—Nitric acid, or acid solution of nitrate of mercury, repeated once or oftener. Potassa fusa. Acetic acid. Super-sulphate of zinc, 198. Actual cautery; free application, so as to ensure complete destruction.

(3) *Removal by knife or ligature:*—Use of knife very rarely advisable: if employed, the incisions must be made wide of the disease, or hæmorrhage will be great.—Ligature, safe and convenient: may be used in many ways. Amongst other plans, the ligatures may be passed subcutaneously around the nævus, and tightened so as to strangulate it, without involving the skin. Or a needle carrying a double thread can be passed through the centre of the base of the growth, and the ligatures tied round each hemispherical division, first making an incision or groove through the skin in which the ligatures may lie. In either case, the ligatures may have to be tightened in four or five days. As granulations form, any tendency to nævus growth must be checked by application of nitric acid.—In nævi within the orbit, or in other inaccessible parts, it has been found necessary to tie the nutrient vessel: ligature of the common carotid has been resorted to under such circumstances.

NASAL LIPOMA.—From Λίπος, fat.—Hypertrophy of skin and subcutaneous tissue of apex and alæ of nose. Most common in men, who are advanced in years and have lived very freely. When the growth is considerable, a cure can only be effected by paring off the redundant tissue. In other cases, increase in size may be prevented by careful diet; avoidance of intoxicating drinks; frequent use of astringent washes.

NASAL POLYPUS.—From Πολὺς, many; πούς, a foot. A tumour so-named because it was supposed to have numerous attachments or feet. Nasal polypi are of three kinds:—Mucous, or gelatinous; fibrous; and medullary.

Symptoms. A sense of stuffiness in one or both nostrils. Frequent desire to blow the nose, with no relief on doing so. Increased mucous discharge. Attacks of bleeding—epistaxis. Impairment of smell and taste. When uninterfered with, displacement of septum of nose; deafness from pressure on Eustachian tube; indistinctness of articulation; deformity of cheek, from expansion of bones; obstruction to tears; and even fatal cerebral pressure. These tumours very apt to return again and again, after removal.

Treatment. Removal by strong, toothed, slightly curved forceps, applied to neck of growth, so as to twist it off.

NECROSIS.—From Νεκρόω, to produce mortification or decay. Synon. *Osteonecrosis; Osteogangræna.*—Mortification or death of a bone, or portion of a bone. The term usually restricted to one form; in which part of the shaft of a cylindrical bone dies, and is enclosed in a case of new bone. *Exfoliation* signifies necrosis of a thin superficial layer, which is not encased in any shell of new bone (Druitt).

Frequently attacks the tibia in children: the phalanges, from whitlow: the skull and clavicle, from syphilis. May arise, from mechanical injury, or from inflammation however set up. A peculiar form of necrosis of the lower jaw occurs amongst the makers of lucifer matches, being produced by the fumes of phosphorus.

Symptoms. Indications of acute osteitis. Suppuration, with formation of sinuses, or cloacæ; through which, on passing a probe, the bare dead bone (the *sequestrum*) can be touched. Abundant fetid discharge. Inflammatory fever. Separation of sequestrum from the living bone after a variable interval. Disease very chronic.

Treatment. Incision and removal of sequestrum as soon as it is detached, and when it can only act as an irritating foreign body.

NEPHRITIS.—From Νεφρὸς, the kidney; terminal *-itis.*—Under this head may be arranged for convenience:—Inflammation of the substance of the kidney; acute desquamative nephritis; chronic desquamative nephritis.

1. Nephritis.—Synon. *Nephrophlegmone; Inflammatio Renum; Inflammation of Substance of Kidney.*—Comparatively a rare disease. May arise without appreciable exciting cause, especially in strumous subjects; from exposure to cold and damp; gravel and calculi; mechanical injuries; poor living combined with intemperance; abuse of diuretics; use of cantharides, oil of turpentine &c. Morbid action either ends in resolution; or it goes on to suppuration, variable sized abscesses resulting, which sometimes destroy entire gland.—When disease is confined to mucous lining of pelvis and infundibula, it is known as *pyelitis.*

Symptoms. Severe pains in loins, increased by pressure or exer-

cise: pain often extending along ureter to neck of bladder, groin, scrotum, or testicle. Numbness of thigh: retraction of testicle. Much constitutional disturbance: shivering, fever, nausea and vomiting, hard and frequent and full pulse, constipation, tympanites. Frequent and urgent desire to empty bladder: urine high coloured, often contains renal casts with blood and pus corpuscles. Sometimes, suppression of urine; with uræmia, convulsions and coma. When recovery follows, foundation for future renal disease often laid.

Where one or more abscesses form, they perhaps lead to ulceration, perforation of capsule, renal fistulæ, and establishment of a purulent discharge. Sometimes, fatal hectic fever. In more favourable cases, pus passes away by natural passages and is found in the urine.—Renal abscess may also be a secondary affection: due to irritation of a calculus, obstructive diseases of urinary passages &c.

Treatment. Hot hip baths. Vapour, or hot air baths. Fomentations. Mild aperients. Diaphoretics, especially such as contain opium if there be no uræmic symptoms. Rest in bed, preferably between blankets. Low diet; with tea, milk, ice, and simple diluents. Sinapisms to epigastrium if there be sickness.—Stimulants, tonics, and support as soon as prostration sets in, or there are indications of suppuration.—See *Urœmia.*

2. Acute Desquamative Nephritis. — Synon. *Acute Diffuse Nephritis; Acute Albuminous Nephritis; Acute Bright's Disease; Acute Inflammatory Dropsy.*—Has its origin in many causes,—intemperance, starvation, exposure to wet and cold, but especially scarlet fever.—Consists essentially of disease of epithelial cells lining convoluted uriniferous tubes; induced by their having to eliminate from the blood some matter not naturally excreted by kidneys. Functions of cells being modified, they become atrophied and disintegrated: from their rapid desquamation they check secretion by mechanically obstructing the tubes. Circulation through vessels of Malpighian tuft becomes impeded: hence effusion of serum and fibrin into cavities of tubes. The serum exuded from congested Malpighian capillaries mingles with the urine, rendering it albuminous: the fibrinous material solidifies, entangles the cast-off cells, and escaping with urine is detected as epithelial tube-casts. If walls of any vessels give way, blood corpuscles will also be found entangled in the casts; and urine will present a dark-coloured sediment.

Occasionally there is general dropsy and albuminuria without desquamation of renal epithelium—*non-desquamative disease of kidney.* Often attended with prominent symptoms of blood-poisoning; owing to some failure and imperfection in effort to eliminate morbid material from system (George Johnson).

Symptoms. Chilliness, rigors: soon followed by feverish reaction, headache, thirst, restlessness, pain and tenderness about loins, vomiting. Dropsy: face first becomes puffy, then general œdema and effusion of serum into one or more of serous cavities. Frequent micturition: urine scanty, of a dark smoky colour, highly albuminous, abundance of epithelial casts and cells &c.—Earliest signs of amend-

ment,—disappearance or lessening of dropsy; increase in quantity of urine; steady diminution of albumen. In unfavourable cases,—suppression of urine; uræmia.

Treatment. *At onset:*—Confinement to bed; preferably between blankets. Low diet: free allowance of milk, tea, cold water, barley water, lemonade, ice. Hot water baths. Blanket-baths, 136. Hot air, or vapour baths. Dry cupping to loins. Linseed poultices to loins. Compound jalap powder. Sulphate and carbonate of magnesia, 141. Sulphate of magnesia and antimonial wine, 152. Resin of podophyllum, 160. Elaterium, 157. Solution of acetate of ammonia. Citrate of potash. Nitrate of potash and nitrous ether, 212.—*At end of a few days:*—Tincture of perchloride of iron, 392, 397. Phosphate of iron, 405. Iron-alum, 116. Quinine. Animal food; milk; raw eggs. Bordeaux or Hungarian wines. Warm clothing: flannel next the skin. Avoidance of spirits and beer: of exposure to cold and damp.—For uræmic poisoning, see *Uræmia.*

Remedies occasionally employed:—Bloodletting. Cupping. Leeches. Blisters. Tartarated antimony. Colchicum. Digitalis and broom. Digitalis and acid tartrate of potash. Chloroform.

3. Chronic Desquamative Nephritis.—Synon. *Chronic Diffuse Nephritis; Chronic Bright's Disease; Gouty Kidney.*—Characterised by long-continued shedding of renal epithelium, which appears in urine in a more or less disintegrated state. The tubes lose their epithelial lining, and become atrophied or filled with new material; or sometimes get dilated into cysts. Kidney becomes granular and contracted. Urine albuminous: of a low density: contains granular epithelial casts.—Comes on insidiously. May result from acute desquamative nephritis: more frequently due to chronic gout, or some allied disorder.

Symptoms. Run their course slowly. Health gradually fails. Debility and loss of flesh. Produces great changes in the blood. Anasarca; dropsy of one or more serous cavities. Inflammation of serous membranes. Hypertrophy of heart: perhaps valvular disease. Structural changes in, or great functional disturbance of, nervous centres.

Treatment. Removal of prominent symptoms. Simple nourishing food. Attention to functions of skin. Cure of any gouty affection. Improvement of blood by ferruginous tonics. Sea air.

NEURALGIA.—From Νεῦρον, a nerve; ἄλγος, suffering. Synon. *Neurodynia; Nervous Pang.*—Violent pain in the trunk or branch of a nerve, occurring in paroxysms, perhaps at nearly equidistant intervals. May attack nerves of head, trunk, or extremities: subcutaneous nerves of these regions suffer most frequently.

Varieties. When the pain affects branches of fifth pair of nerves, —*neuralgia faciei*, or *tic douloureux:* certain nerves about head,—*hemicrania:* sciatic nerve,—*sciatica.* Some authorities regard angina pectoris as neuralgia of cardiac nerves: gastrodynia, as a similar disease of nerves of stomach.

(1) *Tic Douloureux :*—May affect either of three chief branches of fifth pair of nerves. Where pain depends upon morbid condition of first or ophthalmic branch, the frontal ramification of it—supra-orbital nerve—is most frequently attacked : suffering referred chiefly to forehead. Supposing second or superior maxillary branch is seat of complaint, infra-orbital nerve most commonly affected : symptoms consist of excruciating pain shooting over cheek, lower eyelid, alæ of nose, and upper lip. Tic douloureux of third or inferior maxillary branch is generally confined to inferior dental nerve, especially to portion which emerges from mental foramen and extends to lower lip : pain referred to lower lip, alveolar process, teeth, chin, and side of tongue.

Whichever nerve suffers, the torture is usually confined to one-half of face. Right infra-orbital nerve most frequent seat. Attack comes on suddenly, patient at once putting up his hand to press the seat of suffering : it greatly increases in severity, gets lancinating and burning, and then ceases in course of a few seconds. Attacks perhaps preceded by derangement of digestive organs; by dyspnœa; by slight rigors followed by heat. Sometimes absent for weeks, and then almost constant paroxysms for many days.—May be due to dyspepsia; anæmia ; renal disease ; disease of facial bones ; organic disease of brain ; disease of teeth or gums ; poison of malaria &c.

(2) *Hemicrania :*—Headache affecting one side of brow and forehead. Often accompanied with sickness. Sometimes periodical. Has been called *Sun-pain*, as at times it only continues so long as sun is above horizon.

(3) *Sciatica :*—Acute pain following course of great sciatic nerve. Extends from sciatic notch down posterior surface of thigh to popliteal space, and often along nerves of leg to foot. May be due to pressure of intestinal accumulations, of simple or malignant uterine tumours. Other causes,—inflammation, rheumatism, gouty or syphilitic taint, malaria, over-fatigue, exposure to cold and wet.

Treatment. Removal of cause. Improvement of health. Purgatives, only if actually required. *General remedies :*—Nourishing diet : regulated amount of bitter ale, stout, or other alcoholic stimulants : raw eggs : milk, in place of tea and coffee. Warm clothing : flannel next the skin, or chamois leather jackets and drawers. Warm, tepid, or cold salt water baths. Turkish bath. Friction of skin.

Drugs :—Aloes, gentian, and liquor potassæ, 148. Sulphate, or phosphate, of soda, 148, 149. Pepsine and aloes, 155. Croton oil (in sciatica from fæcal accumulation), 168, 191. Quinine, 379. Quinine, steel, and arsenic, 381. Cod liver oil, 389. Iodide of iron and cod liver oil, 390. Steel and pepsine, 394. Steel and arsenic, 399. Phosphate of iron, 405. Strychnia and steel, 408. Valerianate of zinc, quinine, steel, or ammonia, 410. Sulphate of zinc, 413. Hypophosphite of soda, or lime, 419. Iodide of potassium, 31. Guaiacum and aconite, 43, 330. Colchicum, 46. Turpentine, 50. Hydrochlorate of ammonia, 60. Opium, 340, 345. Morphia &c. 317. Hypodermic injections of morphia, or atropine, or aconitine, 314. Chloroform inhalation, 313. Stramonium, 323. Belladonna, or atropia, 326.

Digitalis, 334. Conium. Galbanum. Glonoin. Oxygen inhalation. Salicin. Sabadilla. Sulphate of beberia. Arnica. Musk.

Topical expedients:—Division of affected nerve. Removal of tumours and foreign bodies. Extraction of decayed teeth. Application of iodine. Blisters, dusting raw surface with morphia. Spray of pure ether. Aconitine, 296. Veratria, 304. Belladonna, with opium or mercury, 297, 298. Chloroform, belladonna, and aconite, 281, 282. Belladonna and glycerine, 265. Hypodermic injections of morphia &c., 314. Cyanide of potassium. Hot douches of medicated water. Continuous galvanic current. Acupuncture. Dry cupping.

NEURITIS.—From Νεῦρον, a nerve; terminal *-itis*. Synon. *Neurophlogosis; Neurophlegmone.*—Inflammation of a nerve is a rare disease. Usually due to a bruise or wound, or to inclusion of some nervous branch in a ligature when taking up an artery. May perhaps arise spontaneously in gouty or rheumatic subjects.

Symptoms. Severe and continuous pain along trunk of nerve and its ramifications. Fever. Restlessness, especially at night. In chronic form, symptoms of neuralgia.

Treatment. Iodide of potassium. Aconite. Colchicum. Local use of belladonna. Hypodermic injection, in neighbourhood of pain, of morphia or aconite, 314. Fomentations. Water-dressing. Rest of affected part.

NEUROMA.—From Νεῦρον, a nerve.—A solid or cystic tumour connected with a nerve. Solid growths are of a fibrous nature, consisting of dense plastic matter, implicating neurilemma and nerve-fibres. Occasionally, nerve-fibres merely spread over tumour, without being involved in its texture.

Neuromatous tumours may form spontaneously. Single, more painful than multiple, growths. May result from a wound or other injury: occasionally produced on ends of nerves after amputation.

Symptoms. Neuromatous growths vary in size from a barleycorn to a melon. Occur most frequently on spinal nerves: branches of ganglionic system very rarely affected. Growth steady but slow. Of an oval or oblong form; long axis corresponding with direction of nerve to which there is attachment. Darting pains: much increased by moving tumour in direction of nerve.—In traumatic neuroma, growth single: source of paroxysmal pains, like shocks of galvanism.

Treatment. Excision offers the only hope of cure. Tumour to be carefully dissected out, if possible. When complete excision is adopted, the ends of divided nerve to be brought into apposition by sutures: by maintaining continuity there is no loss of power in parts supplied by the nerve.

NOSTALGIA.—From Νοστέω, to return; ἄλγος, suffering. Synon. *Nostomania; Home-sickness.* — The ungratified desire to return home may give rise to symptoms of melancholia. Great bodily and mental depression. Loss of appetite. Inability to procure sound sleep. In some cases there has been a gradual wasting, delirium, and fatal prostration. When other diseases supervene on nostalgia, the

danger of the former is greatly increased. Kind treatment, amusement, out-door exercise, nourishing food, remedies to induce sleep, and attention to the secretions may afford relief for a time. A temporary return home often suffices to effect a cure.

NYCTALOPIA.—From Νὺξ, evening; ὄπτομαι, to see.—That condition in which vision is most powerful during twilight. The opposite state to hemeralopia.—See *Amaurosis.*

OBESITY.—From *Obesus*, fat or gross. Synon. *Polysarcia; Polysarcosis.*—The over-accumulation of fat under the integuments and around some of the viscera constitutes obesity. Not to be confounded with fatty degeneration of tissues. The term *corpulency* to be retained for those cases where the amount of fat does not constitute a disease.

Symptoms. Impeded play of various important organs. Diminution of bodily and mental activity. Disturbances of organs of respiration, circulation, and digestion. Panting on slight exertion. Blood comparatively deficient in quantity or quality. Weakness of muscles. Countenance bloated and sallow. Liability to gouty and neuralgic affections. Obesity not conducive to longevity. Sudden death not uncommon.

Partial obesity,—e. g. fatty tumours, fatty accumulation around heart, fatty omentum or "pot-belly."

Causes. Hereditary tendency. Over-feeding. Consumption of large quantities of fluid. Indolence, and too much sleep. Excessive use of fatty, farinaceous, vegetable, and saccharine foods. Fat is formed in the body from food containing it; also from chemical transformation of starch and sugar.

Treatment. *Rational treatment:*—Diet of meat, white fish, green vegetables, biscuit or dry toast, tea, claret, sherry. Avoidance, more or less complete, of bread, butter, milk, sugar, beer, potatoes, beans, and soup. Bromide of ammonium, 37. Carbonate of ammonia. Magnesia. Colchicum. Exercise. Seven hours for sleep.

Diminution of weight not to exceed one pound a week. General health, state of appetite, and condition of bowels to be watched.

Remedies formerly employed:—Bleeding from the arm, or jugular vein. Dry cupping. Prolonged blistering. Vegetable diet with vinegar. Acids, except the nitric and phosphoric. Turkish baths. Hot baths. Salt water baths. Baths of Aix, Spa, Forges, Rouen, and Acqui. Occasional starvation. Guaiacum and sassafras. Scarifications. Grief and anxiety to be induced. Purgatives. Diuretics. Preparations of iodine and bromine. Liquor potassæ. Fucus vesiculosus. Emetics. Digitalis. Tobacco. Soap. Salt. Mercury. Inhalation of oxygen gas.

ŒDEMA.—From Οἰδέω, to swell. Synon. *Hydrocœdema; Hydroncus.*—Dropsy of the subcutaneous areolar tissue of any one region.

Treatment. Elaterium, 157. Acid tartrate of potash, 228. Compound jalap powder. Compound scammony powder. Acetate of potash. Digitalis and squills, 219. Gin. Acupuncture.—See *Anasarca; Dropsy.*

ŒSOPHAGEAL CANCER.—From *Οἰσοφάγος*, the swallow. Synon. *Cancer of the Gullet.*—May occur through whole length and circumference of tube, or be very limited. Of scirrhous, medullary, or epithelial variety: latter most common. Generally fatal within a year from commencement.

Symptoms. Soreness of throat. Difficulty in swallowing. Occasionally, cutting pain in ears. Frequent, sometimes constant, sickness. Decided obstruction: after a time, not a particle of food reaches stomach. Formation of a pouch above constriction, in which food lodges. Burning pain in canal, back, or between shoulders. Cough, or hiccough. Hæmorrhage. Wasting. Debility. Cancerous cachexia.

Treatment. Opium, or morphia, 315, 317. Opium by rectum, 339, 340. Subcutaneous injection of morphia, 314. Nutrient enemata, 21, 22, 23. Sometimes, a large gum elastic catheter (No. 14) may be passed through contracted œsophagus and left in: so that cream, solution of raw beef, wine and opium may be injected through it every four or six hours. Ice, to relieve thirst. Iced milk.

ŒSOPHAGEAL STRICTURE.—From *Οἰσοφάγος*, the swallow.—Stricture of the gullet may be organic or functional (spasmodic):—

1. Organic Stricture.—Generally the result of an attempt to swallow some corrosive poison.

Symptoms. At first, vomiting. Pain about œsophagus, perhaps darting through to between shoulders. An apparent cure, after rest and simple diet and demulcent drinks.—At end of some nine or twelve months, great dysphagia: emaciation from inability, which has been gradually increasing for several weeks, to take solid food.—A gum elastic catheter can generally be introduced; through which solution of raw beef, cream, and port wine can be injected into stomach. By gradual use of larger and larger tube, stricture appears to be cured. Patient is perhaps removed from observation. But in a few months, all the symptoms return: the wasting and anæmia become extreme: no instrument can be passed down œsophagus: and death occurs from starvation in spite of nutrient enemata.

Treatment. The only remedy of any avail, consists of dilatation by frequent use of bougies for many months. At first, a gum elastic catheter can be constantly worn. Subsequently, a bougie ought to be introduced at least twice a week.—In hopeless cases, it may be justifiable to make an incision through abdominal parietes into stomach; forming an opening sufficiently large to allow of daily introduction of food. Gastrotomy can be performed with knife: or, perhaps better, by exciting inflammation, adhesion, and ulceration with potassa fusa.

2. Spasmodic Stricture.—Synon. *Œsophagospasmus; Tenesmus Gulæ; Dysphagia Spasmodica.*—Like the urethra and bronchial tubes, the œsophagus may be affected with spasmodic contraction. Young hysterical women subject to it.

Symptoms. Difficulty in swallowing. Sense of fulness and choking

under influence of any excitement. Languor. Anæmia &c. Spasmodic cannot be confounded with permanent stricture, because dysphagia is only temporary : a bougie passes with little or no difficulty : symptoms aggravated when patient's attention is directed to them.

Treatment. Ammonia and assafœtida, 86. Ether and chloroform, 85. Assafœtida and chiretta, 89. Valerianate of quinine, 414. Valerianate of zinc, 410. Phosphate of zinc, 414. Strychnia and steel, 408. Compound iron mixture and aloes, 393. Cod liver oil. Galvanism. Cold shower bath. Nourishing food. Cure of any general or uterine disorder which may be present.

ŒSOPHAGISM.—From *Οἰσοφάγος*, the swallow.—A nervous disorder, in which the symptoms are allied to those produced by spasmodic stricture.

Symptoms. An individual fancies he has swallowed a pin, or fish bone, or other hard substance, and that it can be felt sticking in the gullet. Irritation increases as the delusion is nourished. There is difficulty in swallowing owing to spasmodic or irregular action of the superior, middle, or inferior constrictor muscle. Even the medical man may be misled by trusting to patient's symptoms; or by feeling, with finger in throat, upper edge of cornu of os hyoides, and mistaking it for a foreign body.

Treatment. A careful examination with finger, bougie, or laryngoscopic mirror fails to detect any substance. Galvanism. Quinine, 379. Valerianate of zinc, 410.

ŒSOPHAGITIS.—From *Οἰσοφάγος*, the swallow (*οἴω*, to carry; *φάγω*, to eat); terminal *-itis*. Synon. *Angina Œsophagœa; Dysphagia Inflammatoria; Inflammatio Gulæ.*—Inflammation of the œsophagus very rarely a primary disease. Generally a result of strumous diathesis; of one of eruptive fevers; of abuse of alcoholic drinks, or irritating drugs; of use of acrid poisons &c.—Characterised by dysphagia; symptomatic fever; burning pains shooting from throat to between shoulders; fits of coughing, hiccough; constipation &c. Suppuration, ulceration, or gangrene may result.—Remedies consist of mucilaginous drinks; milk or cream; aperient enemata; hot fomentations to throat; and perfect quiet, even talking being forbidden.

Simple ulceration of œsophagus is attended with difficulty in swallowing; sometimes so great that deglutition is impossible. Pain at epigastrium, or top of sternum, or between shoulders. Nausea; anxiety; emaciation and debility. Ulceration may extend into trachea, pleura, bronchial tube, pericardium, or aorta.—Chief remedies:—Sponging with solution of nitrate of silver (gr. 20 to fl. oz. j). Atomised astringent fluids, 262. Bark. Steel. Quinine. Cod liver oil. Iodide of ammonium. Iodide of potassium. Nourishing food. Sea air. Where death is approaching from starvation, the formation of a gastric fistula should be attempted.

OLIGÆMIA.—From *Ὀλίγος*, thin; *αἷμα*, blood. Synon. *Oligohæmia; Hypœmia; Hypohæmia.*—Deficiency of blood.—See *Anæmia.*

ONYCHIA.—From Ὄνυξ, a nail. Synon. *Paronychia; Onychitis; Onychia Maligna.*—An inflammation of the matrix of the nail. May arise from mechanical injury; or from depraved state of constitution.

Symptoms. Pain and swelling at root of nail, and about surrounding textures. Exudation of sanious discharge on pressure of nail. Nail gets raised, and finally detached, exposing a foul ulcer. Ulcer becomes glazed and irritable: perhaps extends in all directions. Occasionally, necrosis of distal phalanx.

Treatment. Removal of nail. Ulcer to be dressed with zinc lotion, 264. Nitrate of silver. Local fumigation with calomel. Arsenic, chlorate of potash, and bark, 402. Quinine and steel, 380. Cod liver oil. Nourishing food.—In syphilitic onychia,—Red iodide of mercury, 54. Mercurial vapour bath, 131. Solution of corrosive sublimate, 27. Iodide of potassium, 31.

ONYXIS.—From Ὄνυξ, a nail or hoof. Synon. *Aduncatio Unguium; In-growing of the Nail.*—Inflammation and ulceration of side of toe, owing to margin of nail being pressed into the flesh. Ulcer gets covered with flabby and sensitive granulations. Causes great suffering, especially during walking.

Treatment. Removal of pressure of boot. Nails to be ordinarily cut off square, instead of down inner and outer sides. Scraping side of nail very thin, soaking in hot water, and introduction of pellet of cotton wool so as to separate nail from ulcer. Removal of offending half of nail: anæsthesia, or ether spray. Subsequent dressing with zinc lotion, 264. Excision of bulbiform enlargement close to edge of nail, leaving a sloping surface with the nail overhanging raw surface.

OPHTHALMIA.—From Ὀφθαλμὸς, the eye.—A general term for inflammation of the eye.—See *Conjunctivitis; Sclerotitis* &c.

OPHTHALMIA TARSI.—From Ὀφθαλμὸς, the eye: Ταρσὸς, a hurdle. Synon. *Blepharophthalmia; Blepharotitis; Adenophthalmia.*—Inflammation of the palpebral conjunctiva and edge of eyelids; with formation of minute pustules at roots of eyelashes, the discharge from which produces small crusts matting the hairs together. When attended with much irritation it is sometimes termed *Tinea ciliaris*, or *tinea palpebrarum*, or *psorophthalmia.*

Symptoms. When acute, considerable pain and soreness. Usually chronic:—Itching; destruction of tissues which secrete the hairs; a blending of the skin and conjunctiva into a red shining cicatrix. Obliteration of puncta, causing stillicidium lachrymarum.—See *Epiphora.*

Treatment. *Internally:*—Improvement of general health. Tonics. Alteratives. Arsenic and steel. Cod liver oil. Animal food: milk. Change of air.—*Locally:*—Great cleanliness to prevent accumulation of crusts. Eyelashes to be cut off close. Ointments, properly diluted, of nitrate of mercury, red oxide of mercury, or of oxide of zinc. Diluted solution of subacetate of lead. In obliteration of the lower punctum, the whole course of the canaliculus to be slit up to the caruncle, so as to lay open the canal and extend its orifice backwards to the point where the tears accumulate (Bowman).

ORCHITIS. — From *Ὄρχις*, a testicle; terminal *-itis*. Synon. *Hernia Humoralis.*—Inflammation of the testicle.—See *Testitis.*

ORTHOPNŒA.—From *Ὀρθός*, erect; *πνέω*, to breathe.—Excessive difficulty of breathing, so that the sufferer has to maintain erect position. Often present in asthma, bronchitis, pneumonia, dropsy, valvular affections of the heart, paralytic diseases &c.

OSTEITIS.—From *Ὀστέον*, a bone; terminal *-itis*. Synon. *Ostitis.*—Inflammation of bone arises from same causes as periostitis. Where the latter is of long duration, the former arises.

Symptoms. Great tenderness. Deep seated pain, aggravated at night; influenced also by weather. Enlargement of affected bone.

Treatment. See *Periostitis.*—Where suppuration occurs, and the medullary canal and cancellous structure get filled with pus, tonics and free supply of nourishment required. Amputation sometimes necessary. See *Osteomyelitis.*—In circumscribed abscesses of cancellated structure of either extremity of tibia, trephining the bone must be resorted to, so as to let out the pus.

OSTEOID CANCER.—From *Ὀστέον*, a bone.—These cancers usually grow from some bone, and especially from the lower part of femur. Their general history corresponds to that of the scirrhous and medullary varieties. They are as malignant and as quickly fatal as the medullary; and they give rise to secondary deposits in areolar tissue, lymphatics, lungs, &c.—See *Cancer.*

OSTEOMALACIA.—From *Ὀστέον*, a bone; *μαλακὸς*, soft. Synon. *Mollities Ossium; Malacosteon; Rachitis Adultorum; Softening of the Bones.*—The characteristic feature of this disease, as of rickets, is a deficiency of phosphate of lime; so that the bones become soft and unnaturally flexible. The affection is constitutional: the whole skeleton is usually affected, producing distressing and remarkable deformity. Women beyond the age of forty are most obnoxious to it: the pelvis often first attacked in childbearing women. Large quantities of earthy salts are passed in the urine. The general health becomes hopelessly impaired: gradual loss of flesh and strength. Severe and intractable pains of a rheumatic character: spontaneous fractures. Sooner or later, in spite of tonics and opiates and nourishing food, death.

OSTEOMYELITIS. — From *Ὀστέον*, a bone; *μυέλος*, marrow; terminal *-itis*. Synon. *Medullitis; Endosteitis.*—Inflammation of the medullary membrane lining the central canals of long bones, as well as the cells of the flat and irregular bones; which delicate vascular membrane secretes the medulla, and is continued into the cells of the cancelli and the Haversian canals.

Generally the result of injury: a frequent cause of death after amputation and other operations on bone. The symptoms are usually obscure, being masked by accompanying inflammation and suppuration of soft parts. It causes the periosteum to recede or separate from

surface of the bone. But little modified by medicines: amputation of limb, or of remainder of limb, often necessary.—See *Osteitis*.

OTALGIA.—From Οὖς, the ear; ἄλγος, pain. Synon. *Otodyne; Earache.*—May be *symptomatic* of inflammation of ear, or of presence of foreign bodies in external meatus, or of tonsillitis, or of disorder of primæ viæ, or of rheumatism of the head &c.; or it may be *idiopathic*,—true neuralgia of auditory nerves. In latter case, suffering most severe on invasion; unlike the pain in otitis, it does not increase in severity, is unattended by fever, and often disappears suddenly. Nervous otalgia may be connected with imperfect performance of functions of stomach or liver; or may arise from uterine derangement; or may occur in early stage of utero-gestation; or may be due to a carious tooth; or perhaps alternates with sciatica, tic-douloureux &c. Sometimes pain very severe; it frequently shoots through nervous filaments distributed over same side of face and head, causing much suffering and restlessness.

Treatment. When symptomatic, attention to be directed to primary disease.—When idiopathic, — mild purgatives; quinine; opium; Indian hemp. Application of a small blister behind affected ear; local use of chloroform vapour, aconite liniment, cotton wool saturated with laudanum, steam of decoction of poppy heads, linseed poultices, the boiled bulb of common onion or of garlic. Carious teeth to be extracted or stopped.

Noises in the ears (tinnitus aurium), deafness, confusion in the head &c. may arise from *accumulation of cerumen* in external meatus. The wax to be removed by thoroughly syringing with warm water; or with solution of carbonate of potash (gr. 10 to fl. oz. j). Avoid mistaking deafness and singing in the ears, owing to the pressure of a mass of hard wax on the membrane of the tympanum, for symptoms of incipient cerebral disease.

OTITIS.—From Οὖς, the ear; terminal *-itis*. Synon. *Inflammatio Auris; Inflammation of the Ear.*—Various parts of the organ of hearing may be attacked:—

1. Inflammation of External Meatus.—Synon. *External Otitis; Otitis Catarrhalis.*—The sensitive dermis of the canal may become inflamed from introduction of irritating matters, an accumulation of hard wax, blows on side of head, cold, gouty state of system, impoverished blood &c.

Symptoms. Dull aching pain, increased on moving jaw. Vascularity and tumefaction, the latter sometimes closing canal and causing temporary deafness. Swelling of cervical glands on affected side. In a day or two, a copious secretion of mucus,—often very thin and abundant. In chronic cases, persistent otorrhœa: the dermis remains more or less tumid; epithelium thrown off in scales which accumulate and obstruct canal; diminished power of hearing; great itching; and general depression.

A small circumscribed abscess in the meatus will cause acute

throbbing pain; narrowing of aperture of canal; dulness of hearing. Often occurs where there is a tendency to boils or styes.

Treatment. The general health to be improved. Nourishing food, with plenty of milk, when digestion is good. Quinine. Iron. Chlorate of potash. Colchicum? Cod liver oil. Sea air.—*Locally:*—Fomentations and poultices; frequent bathing to remove the irritating discharge. If much pain and swelling, a couple of leeches to margin of meatus will relieve congestion. When inflammatory symptoms terminate in chronic irritation, the collection of epidermis must be removed by syringing with warm water; mild astringent injections generally useful; glycerine, or olive oil. Sometimes the cure is hastened by application of small blisters over mastoid process.

2. Inflammation of Membrana Tympani.—Synon. *Myringitis.*—May be acute or chronic. The consequence of cold; of irritating matters; of gouty, tubercular, or syphilitic taints; of the extension of disease from walls of meatus.

Symptoms. Pain, itching, slight deafness. A sense of discomfort on affected side of head. On examination with speculum, the membrana seen to be opaque, and traversed by distended vessels. Ulceration may take place, and even lead to perforation. Another result to be feared is permanent relaxation of the membrane; which loses its natural degree of resiliency, becomes flaccid, and falls in towards the promontory. A third consequence is thickening and hypertrophy of the fibrous laminæ.

Treatment. When due to gouty, strumous, or syphilitic taints, the appropriate remedies for these conditions are needed. In other respects, the treatment is the same as for inflammation of external meatus. Where there is perforation, the artificial membrana tympani,—a thin circular plate of gutta percha with a silver wire handle; or a layer of moistened cotton-wool with a thread attached to it.

3. Inflammation of Tympanic Cavity.—Synon. *Internal Otitis.*—A severe disease. Rendered more serious by usually being combined with inflammation of the internal coat of the membrana tympani.

May arise from cold, the poison of rheumatism or gout, scarlet fever, and the strumous constitution. Not uncommon in youth: many cases of children's earache, causing miserable nights, really due to it.

Symptoms. Uneasiness in ear on blowing nose or on swallowing: in a short time the discomfort becomes continuous. There may be violent headache; followed by intense and sharp and gradually increasing pain in ear, with loud or beating noises. Then, a sense of bursting or distension in ear: more or less deafness. Eyes become injected; countenance anxious; skin hot; pulse frequent; functions of kidneys and bowels disordered. Delirium often present; or, in children, convulsions. Always great depression: foreboding of some heavy calamity. Facial paralysis (caused by inflammation extending to bony canal in which portio dura passes round tympanum) may occur: power regained as morbid action subsides. Termination in one of three ways: either by resolution; by suppuration, the pent-up pus bursting through membrana tympani, and so discharging itself; or by

inflammatory process spreading through mastoid cells internally, or by bony meatus to periosteum covering mastoid process externally.

In external otitis, perforation of membrana tympani may take place owing to extension of ulceration from without inwards. In present case, the reverse happens; morbid action progresses from within outwards. This latter the most frequent cause of formation of an orifice; fortunately the opening generally closes spontaneously in the course of a week or two.

Treatment. To be conducted with caution. Bowels should be moderately acted upon; action of skin promoted; patient kept in bed in a quiet room.

Salines, 348. Refrigerating drinks, 355, 356. Chlorate of potash, 360. Where there are manifestations of rheumatism or gout, iodide of potassium and colchicum, 31. Opium or morphia, 315, 317. Aconite, 330, 331.—*Locally:*—Vapour of boiling water. Fomentations with poppy heads, chamomile flowers. Linseed, onion, or garlic poultices. Small blisters to mastoid process. When abnormal aperture in membrana tympani fails to close, attempts to be made to induce cicatrisation by occasional use of nitrate of silver. This failing, and opening being of such a size as to cause deafness, application of artificial membrane, after producing healthy state of lining tissues of tympanum by mild astringent lotions and gentle syringing.

OTORRHŒA.—From οὖς, ὠτὸς, the ear; ῥέω, to flow. Synon. *Otirrhœa; Blennotorrhœa; Catarrh of the Ear.*—A purulent or muco-purulent discharge from the ear. A symptom of certain diseases of the ear; as of catarrhal inflammation, polypus, granulations on the surface of the membrana tympani &c. Occurs very frequently, without any appreciable cause, in young children about the time of dentition; or on the subsidence of any of the exanthemata, especially in strumous subjects. In adults it occasionally seems to be due to a depressed condition of system. The secretion is generally offensive and irritating; when it has existed for any length of time, it is often tinged with blood.

Symptoms. Commonly the discharge ceases in a short period. Occasionally it becomes chronic, and when this happens it may continue for years; destroying in the course of time the membrana tympani, the ossicula auditûs, and producing caries of the bony walls of the meatus and tympanum. The disease may even extend to the cells of the mastoid process of the temporal bone; or in the opposite direction along the petrous portion of the same bone, until the brain and its membranes become involved in the unhealthy action. This event indicated by rigors, fever, and marked cerebral symptoms: ultimately convulsions, coma, and death. Cases of phlebitis, with pleurisy and pneumonia, have also resulted from caries of the mastoid cells.

Treatment. Syringing gently with warm soap and water; then careful examination of meatus auditorius externus with ear speculum. If no cause (as polypus &c.) be found, attention to general health. Nourishing diet,—animal food, milk &c. Quinine and steel, 380. Steel and pepsine, 394. Phosphate of iron, 405. Mineral acids and

bark, 376. Iodide of iron, 32, 382. Iodide of potassium and guaiacum or sarsaparilla, 31. Cod liver oil.—*Locally:*—Frequent syringing with warm water. Injections of alum, zinc, sulphate of cadmium, or tannin, of same strength as collyria, 291. Glycerine. Olive oil. Painting walls of canal with solution of nitrate of silver—gr. 6 to fl. oz. j. Equal parts of balsam of Peru and ox gall daily dropped into ear. Ointment of carbolic acid—gr. 10 to lard oz. 1. Solution of chlorinated soda—min. xxx to fl. oz. j.

OTORRHAGIA.—From Οὖς, ὠτὸς, the ear; ῥήγνυμι, to burst out.—Hæmorrhage from the ears arises from different causes:—(1) Fracture of base of skull, by which a communication is established between sinuses of dura mater and middle ear. The membrana tympani being ruptured, blood escapes externally. If both petrous bones be injured, hæmorrhage from both ears. Occurrence of bleeding, on one or both sides, generally regarded as of unfavourable import.—(2) *Wounds and ulcerations of auditory canal;* whether produced by earpicks or other instruments, insects, foreign bodies voluntarily introduced, or old hardened ceruminous concretions. To be stopped by extraction of foreign body.—(3) *Granulations, polypi, and abscesses of auditory canal.* To be cured by removal of polypus, use of nitrate of silver to granulations, or incision into abscess.—(4) *Caries and necrosis of petrous portion of temporal bone, with destruction of membrana tympani.* If walls of carotid canal be involved, a spiculum of bone will possibly wound internal carotid artery, and cause fatal loss of blood. Ligature of common carotid may have to be resorted to.—(5) *Rupture of membrana tympani;* which may occur during ascent of high mountains, or in descent of low valleys, or in going to any great depth in a diving-bell, &c.; during violent sneezing or vomiting; or during paroxysms of hooping-cough or asthma. The air is violently forced through Eustachian tube into tympanum, the delicate membrane of which gives way where it is least capable of offering resistance—near insertion of handle of malleus. The bleeding to be checked by swabbing meatus with styptics. Subsequently, an artificial tympanum may be needed to relieve deafness.—And (6) *It may be a vicarious hæmorrhage,*—i.e., it may perhaps replace menstruation, or long-continued bleeding from piles or old ulcers.

OVARIAN DISPLACEMENTS.—One or both ovaries are occasionally forced out of position by some uterine or other tumour; or an ovary may escape from pelvis, forming a true hernia of this gland. Displacements of first class, usually aggravate the symptoms of the disease causing them: suffering often ceases, if tumour increase in size and pass upwards out of pelvic cavity. Those of second class may be congenital, or may happen accidentally after puberty. Occasionally, the ovary forms the contents of an inguinal, crural, or umbilical hernia.

OVARIAN TUMOUR.—From *Ovarium* (Ὠάριον, a small egg, dimin. of ὠόν), the ovary: *Tumor,* (*Tumeo,* to be swollen), a tumour.

Synon. *Ovarian Dropsy; Cystic Disease of Ovary.*—Consists of a conversion of the ovary, or of parts of it, into cysts. Three varieties of cysts:—Simple or unilocular; compound, multilocular, or proliferous; and dermoid cysts, the lining membrane of which has the power of producing hair, teeth, sebaceous matter &c.

Symptoms. Very slight in early stage: disease generally escapes detection until abdomen begins to be enlarged. In exceptional cases, tumour while in pelvic cavity causes irritation of rectum and bladder: sense of weight and oppression: pain and numbness down thigh of affected side. Backache. Menstruation usually regular, perhaps abundant.

In more advanced stage, great pain and tenderness: distension of abdomen. Disordered menstruation, perhaps suppression. Loss of flesh. Constipation. Indigestion. Frequent micturition: urine often scanty. Loss of appetite. Restless nights. Dyspnœa. Diminution of strength. Abdomen found enlarged: fluctuation, varying in distinctness according to number of cysts, their distension, and capacity. Dulness on percussion. Tumour may cause ascites. Œdema of thighs and legs.—At length, suffering rapidly augmented. Patient's movements impeded from bulk of tumour. Miserable nights: attacks of dyspnœa necessitate sitting up in chair. Considerable œdema. Sometimes, suppression of urine: uræmic poisoning. Fatal prostration.

Treatment. Abdominal tapping, followed by well-adapted pressure, and administration of iodide of potassium, 31. Tapping, with introduction of drainage tube, so as continually to withdraw fluid as it is re-secreted. Tapping, followed by prolonged administration of chlorate of potash in full doses. Tapping, with injection of iodine. Tapping, with application of ligature around pedicle. Tapping through vagina. Abdominal section,—ovariotomy.

Drugs to produce absorption, worse than useless. Application of blisters, leeches, iodine ointment, mercurial ointment, stimulating liniments, electricity &c. to be avoided.

OVARITIS.—From *Ovarium* (Ὠάριον, a small egg, dimin. of ᾠόν), the ovary; terminal *-itis*. Synon. *Oöphoritis; Oäritis; Inflammatio Ovarii.*—Inflammation of the ovary occurs under two forms,—the acute, and subacute or chronic:—

1. Acute Ovaritis.—May arise from violence, use of strong caustics to labia uteri, dilatation of os with sponge-tents, sudden suppression of menses from shock, gonorrhœa &c. Left ovary more frequently attacked than right: double ovaritis rare.

Symptoms. Pain of variable amount: sometimes most intense, causing paroxysms like labour-pains; more frequently of a dull aching character, with occasional sharp lancinating attacks. Tenderness about lower part of abdomen: of groin and inner part of thigh corresponding to affected gland. If morbid action continue, peritoneum gets involved. Bladder becomes irritable: urine scanty, high-coloured, and scalding. Tenesmus. Passage of hardened fæces causes much suffering by pressure on ovary. Fever; rapid pulse; nausea; rest-

lessness; disgust for food. On examination, the swollen and exquisitely sensitive ovary easily detected.—If suppuration occur, there will be rigors; quick and feeble pulse; glazed red tongue; excessive sickness; sense of weight and throbbing about pelvis. Abscess may burst into peritoneum, setting up severe peritonitis: more favourably, into rectum or vagina. Such cases sometimes very tedious: opening closes, but pus accumulates again and again.

Treatment. Hot hip baths, night and morning. Pessaries of opium and belladonna, 423. Fomentations: hemlock poultices: linseed poultices,—to vulva, hypogastric, and inguinal regions. Iodide of potassium, 31. Guaiacum and aconite, 43. Opium and belladonna, 344. Rectum to be emptied by enemata of olive oil, 188. Leeches to labia uteri, if attack be due to sudden suppression of menses. If an abscess point in vagina, it may be cautiously opened with a trocar or bistoury.

2. Chronic Ovaritis.—A common disease during period of sexual vigour. Runs a tedious course. May be set up by excessive sexual intercourse; unskilful use of uterine sound, or caustics; rheumatic and syphilitic taints &c.

Symptoms. Dull and continuous aching in ovarian and sacral regions. Tenderness of upper part of one or both thighs. Scanty and difficult menstruation. Pain on sexual intercourse. Irritability of stomach; nausea, indigestion, constipation, flatulence. Fits of hysteria. Irritability of bladder. Tumefaction and tenderness of one or both breasts.—Attacks of nymphomania, or even some forms of chronic insanity, may arise from subacute ovaritis. Inflamed gland found swollen and sensitive, on making a vaginal examination.

Treatment. Iodide of potassium, 31. Bromide of ammonium, 37. Guaiacum and aconite, 43. Hydrochlorate of ammonia, 60. Cod liver oil, 389. Pepsine, 420. Ammonia and bark, 371. Quinine and belladonna, 383. Iodide of iron and cod liver oil, 390. Iodide of lead and belladonna pessaries, 423. Belladonna plaster to sacrum. Warm hip baths. Warm clothing: flannel drawers. Animal food: milk, raw eggs. Gentle walking exercise.

Avoidance of:—Blisters. Leeches. Calomel. Antimony. Strong purgatives. Sexual intercourse.

OZÆNA.—From ὄζη, a stench. Synon. *Coryza Virulenta; Pyorrhœa Nasalis; Rhinitis Ulcerosa.*—Chronic inflammation of the nostrils. Due to long-continued attacks of catarrh, especially in gouty or strumous subjects; syphilitic taint; abscess of septum; chronic ulceration; polypi; necrosed bone; or foreign bodies in nasal cavities.

Symptoms. Appearance, perhaps, of common cold. Uneasiness and "stuffiness" of nose. Swelling of pituitary membrane. Headache. Profuse, fetid, muco-purulent discharge; sometimes tinged with blood. Formation of flakes of fibrin or hardened mucus; which, if allowed to remain in nose, decompose and give out a most disgusting odour. Septum of nose often eaten through, leaving a small round hole. Caries or necrosis of spongy bones, especially in syphilitic cases.

Treatment. *General remedies:*—Quinine and iron, 380. Nitro-hydrochloric acid, 378. Arsenic and bark &c., 52. Steel with arsenic, 381, 399. Cod liver oil. Chlorate of potash and steel, 402. Iodide of iron and cod liver oil, 390. Iodide of potassium, 31. Corrosive sublimate, 27. Red iodide of mercury, 54, 55. Green iodide of mercury, 53. Mercurial vapour baths, 131. Sea air. Nourishing food. Warm clothing.

Locally:—Frequent and thorough syringing with warm water. Injections of alum; or zinc; or permanganate of potash, 78. Inhalation of steam medicated with iodine, 259; or creasote, 260; or turpentine, 260. Iodine vapour, 259. Nitrate of mercury ointment, 305. Iodide of lead ointment, 293. Pulverised medicated fluids, 262. Snuffs of chlorate of potash and sugar (gr. 30 and oz. $\frac{1}{2}$); or of red oxide of mercury and sugar (gr. 5 and oz. $\frac{1}{2}$); or of white bismuth.

PANCREATIC DISEASE.—Disease of pancreas (from Πᾶς, all; κρέας, flesh) of comparatively rare occurrence. When affected, it is mostly impossible to diagnose exact nature of morbid state.

Diseases which may occur are:—Congestion, hypertrophy, inflammation, suppuration, induration, serous softening. Atrophy; fatty degeneration. Simple cystic tumours; hydatid tumours. Scirrhous or medullary cancer. Calculous concretions, composed of carbonate and phosphate of lime cemented by animal matter, are not uncommonly found in pancreatic duct or its branches: of a white colour, varying from size of a pea to that of a walnut, and existing singly or to the number of fifteen or twenty.

Symptoms. Most pancreatic disorders attended by enlargement and tenderness of gland. Epigastric tenderness; fulness or hardness; sense of heat and constriction. Nausea and vomiting; salivation; loss of appetite; inodorous eructations. Fatty stools. Mental depression. Debility, with emaciation. If common choledic duct be pressed upon by pancreatic tumour, or if it be involved in structural disease of gland, there will be persistent jaundice.

Treatment. Alleviation of prominent symptoms. Pancreatic emulsion. In obstinate sickness,—nutrient enemata. Ice. Seton in abdominal wall over seat of gland. Repeated small blisters.

PARALYSIS.—From Παραλύω, to relax—to affect with paralysis. Synon. *Paresis; Palsy.*—A total or partial loss of sensibility or motion, or of both, in one or more parts of body. Two great classes of paralytic affections:—(1) *Perfect* paralysis, in which both motion and sensibility are affected. (2) *Imperfect*, in which only one or the other is lost or diminished. Divided into *acinesia* ('A, priv.; κίνησις, motion), paralysis of motion; and *anæsthesia* ('A, priv.; αἰσθάνομαι, to feel), paralysis of sensibility.—Again, palsy may be *general*, when it affects whole body; or *partial*, when confined to one portion,—hemiplegia or paraplegia. Term *local* palsy used, when only a small portion of body is affected; as face, a limb, one foot. In *reflex* paralysis (*Reflecto*, to turn back) the irritation extends from periphery

to centre: diseases of urinary organs, uterus, and intestines most common causes of this form. A peculiar disease known as *wasting* palsy, prominent symptom of which is a degeneration and wasting of the muscles.

Palsy may be due to disease of brain arising from apoplexy, abscess, softening, induration, tubercular or cancerous tumours, renal disease, epilepsy, chorea, or poison of syphilis; to disease of spinal cord, as inflammation, atrophy, solution of continuity &c.; to diseases of investing parts of brain or cord, acting by pressure; to lesion or compression of a nerve, by which its conducting power is impaired; to some affection of the muscle itself, as is possibly seen in wasting palsy; to hysteria, or to rheumatism; and to influence of such poisons as lead, mercury &c.

1. General Paralysis.—Complete loss of sensation and motion of whole system cannot take place without immediate death. Term "general paralysis" usually applied to palsy affecting the four extremities, whether any other parts of body are affected or not. Must not be confounded with progressive paralysis of insane: see *Insanity*.

A case has been related in which power of motion in every part of body was lost, save in muscular apparatus of tongue, and of organs of deglutition and respiration. Sensibility also wholly destroyed except in a small patch on right cheek, by tracing letters on which the patient could be communicated with (Defermon).

2. Hemiplegia.—From Ἥμισυς, half; πλήσσω, to strike. Synon. *Semiplegia*.—Paralysis of one side, almost invariably involving both upper and lower extremity. Most common form of palsy. Usually spoken of as "a paralytic stroke." Left more frequently affected than right side. If only one extremity suffer, it is generally the arm. Very rarely, upper limb of one side and lower of opposite are paralysed,—transverse or crossed palsy.

Symptoms. Facial nerve or portio dura of seventh pair seldom involved. Fifth nerve affected; so that palsied cheek drops loosely, while mouth is drawn upwards to sound side by non-counteraction of paralysed muscles. Tongue implicated; when protruded, point turned to diseased side, owing to vigorous action of healthy muscles pushing sound half further out than the other. Articulation imperfect owing to palsy of ninth and fifth nerves. If third nerve be involved,—dropping of upper eyelid, dilated pupil, divergent squint.—Often anæsthesia. Mental faculties frequently damaged. Tendency to shed tears. Forgetfulness and misplacement of words. In red softening of brain, muscles of one of affected limbs often rigid and contracted.—In hopeless cases, limbs waste: muscles atrophy, owing to diminution of nutrition. Prognosis unfavourable if there be flexion of fingers into palms of hands. In favourable instances, symptoms of amendment first observed in leg. Where the arm regains power before the leg, prognosis unfavourable.

Treatment. Depletion injurious. Cathartics sometimes useful at first:—Scammony and jalap; calomel; croton oil; stimulating

purgative enemata. Efficacy doubtful of blisters to scalp or nucha, or of setons.

When muscles of palsied limb are perfectly flaccid, the lesion is probably owing to white softening from defective nutrition. Hence, wine and nourishment to be given; cod liver oil; ammonia and bark; ammonio-citrate of iron; hypophosphite of soda or lime.—When muscles are contracted or resist movement, the lesion of an irritative kind; perhaps an apoplectic clot which has lacerated nerve fibres. In such, mild purgatives; blisters; sulphur baths; iodide of potassium.—In reflex hemiplegia, removal of the cause.

In chronic forms:—Small doses of strychnia, where there is no active disease of brain. Mild ferruginous tonics: phosphate of iron; ammonio-citrate of iron. Cod liver oil. Animal food: milk. Frictions of limbs and spine with flesh-brush; liniments of turpentine, cantharides, ammonia &c. Electricity and galvanism, when paralysis remains without muscular rigidity.

3. Paraplegia. — From *Παραπληξία*, partial paralysis,—*παραπλήσσω*, to strike badly. Synon. *Rachioplegia; Myeloparalysis; Paralysis Spinalis.*—Palsy of the lower half of body. Two varieties: (1) That due to disease of spinal cord or membranes. (2) Reflex paraplegia, that caused by excitation which has reached the cord from a sensitive nerve. There is probably an insufficient amount of blood in cord.

Symptoms. Begin slowly and insidiously. Weakness and numbness and tingling of feet and legs. Weakness increases, until there is complete loss of sensibility and motion in lower extremities. Paralysis of bladder and sphincter ani. Decomposition of urine in bladder. Involuntary movements and spasms of legs often very distressing. Reflex movements excited more easily in paraplegia than in hemiplegia. Marked deterioration of general health.

Treatment. An important distinction to be drawn between cases where there is congestion or inflammation of spinal cord or membranes, and the opposite condition.

(1) Where amount of blood is increased, as in chronic local myelitis, there are symptoms of irritation of motor nerve-fibres,—as convulsions, cramps, twitchings, priapism; with indications of irritation of sensitive nerve-fibres,—as itching, pricking pains, abnormal sensations of cold or heat &c.; and also signals of irritation of vaso-motor or nutritive nerve-fibres,—as wasting of muscles, bed-sores, alkaline urine &c. Pain corresponding to upper limit of inflammation. Tenderness on pressure. Application of a hot sponge causes sense of heat in all parts above inflammation, with burning sensation at upper limit. Application of a piece of ice over vertebræ gives rise to sense of cold everywhere except at level of inflammation, where feeling of heat is experienced. In treating these cases, quantity of blood sent to cord is to be diminished. Ergot of rye, in five or six grain doses, twice daily. Belladonna. Belladonna plaster over spine. Iodide of potassium, in conjunction with belladonna. Cod liver oil. Henbane, conium, or Indian hemp to relieve restlessness. Avoidance of opium, as it causes congestion of cord. Nutritious diet: wine or beer, milk.

Nutrition of limbs to be maintained by shampooing, stimulating liniments: at a subsequent period by very gentle galvanic current.

(2) In paraplegia due to diminished nutrition of cord, as that caused by white softening and reflex palsy, food and remedies needed to improve quality of blood, and cause an increased quantity to be sent to cord. Strychnia, gr. $\frac{1}{20}$ daily. Opium. Quinine and iron. Nitrate of silver and hypophosphite of soda, 419, deserving of trial. Cod liver oil. Sulphur baths. Very nourishing food. Patient to lie on his back, with head and shoulders and lower extremities raised, so that blood may gravitate to cord.

A controlling power can be exercised by means of heat and cold applied to different parts of back, over the circulation in brain and spinal cord and ganglia of sympathetic, and through agency of these nervous centres in every other organ. In this way, reflex excitability, or excito-motor power of cord, and contractile force of arteries in all parts of body can be modified. To lessen the excito-motor power, ice is applied in an india rubber bag about two inches wide, over that part of spine on which it is wished to act. On same principle, vitality of cord increased by using hot water and ice alternately, each in an india rubber bag if energetic action be required: where less vigorous efforts are called for, ice or iced water only employed, resorting to application several times a day, for a short time on each occasion, with long intervals between (John Chapman).

In reflex paralysis, while relieving loss of power on preceding principles, the external cause must be removed. Thus, the practitioner should expel intestinal worms; lance gums; relieve irritability of urinary and sexual systems; cure skin diseases &c.

4. Local Paralysis.—Many varieties of local palsy. Only necessary to mention one,—*Paralysis of face.* Results from pressure on, or injury to, portio dura or facial portion of seventh pair of nerves; a nerve rarely affected by disease of brain. Exposure to cold, and debility, most frequent causes of facial palsy. May also be due to irritation of decayed teeth. In children, otitis leading to caries of petrous portion of temporal bone may produce the disease. It will last from a few days to several weeks. Usually free from danger.

Symptoms. Appearance remarkable, as only one-half of face is usually palsied. Features on affected side blank, unmeaning, void of all expression. Orbicularis palpebrarum muscle powerless, so that eyelids cannot be closed. Inability to frown or blow; nostril does not dilate; cheek hangs loose; angle of mouth droops.—Fifth pair of nerves unaffected; so that muscles of mastication act properly. No loss of sensibility.—In facial paralysis due to cerebral hæmorrhage the symptoms are less marked, though of same character as foregoing.

Paralysis of portio dura on both sides, a rare affection. When it occurs there is no distortion of features owing to symmetrical nature of disease. On close examination, however, nostrils are found motionless; cheeks flat and relaxed; inability to close eyes completely; defective articulation with regard to sounds formed by lips, but unimpaired lingual articulation.

Treatment. Mild antacid aperients. Iodide of potassium. Bromide of potassium. Nourishing food. Warm bathing. Friction with shampooing. Galvanism.

5. Progressive Locomotor Ataxy.—From ’A, neg.; τάσσω, to put in order. Synon. *Tabes Dorsalis; Wasting of posterior columns of Spinal Cord.*—A peculiar form of paraplegia produced by sexual excesses, exposure to cold and damp, rheumatism, gout &c. Most common in males about middle period of life. In well-marked cases it has been shown that atrophy and disintegration of nerve-fibres of posterior columns of spinal cord has taken place, with formation of amyloid corpuscles and hypertrophy of connective tissue. Lesions not always confined to posterior columns of cord. Often also a certain grey degeneration of cerebral nerves, of spinal nerves, and various lesions of grey substance of cord (Lockhart Clarke).

Symptoms. The pathognomonic symptom is a diminution or total absence of power of co-ordinating movements; so that patient has difficulty in walking, loses his balance, and has an uncertain and tottering gait. Distinct from ordinary paraplegia, in which there is impairment or loss of voluntary motion.

Intellect and memory unaffected. Occasionally more or less paralysis of second, third, fifth, sixth, seventh, and some portions of eighth cerebral nerves. Rarely deafness: difficulty in swallowing: strabismus: double vision. A sensation as of strings tied round abdomen now and then complained of. Rheumatic pains: sharp pains over limited spots. No tenderness on examination of spine. “Pins and needles,” with numbness in lower extremities; a feeling of insecurity in walking, so that the legs have to be watched to prevent staggering, while they are thrown forwards spasmodically and then planted forcibly on the ground. Ultimately, loss of sensation in lower limbs; complete amaurosis; increasing weakness, so that patient cannot leave his bed. Progress of disease slow: perfect recovery very rare. Occasionally death occurs from intercurrent affections, as bronchitis, pneumonia, erysipelas &c.

Treatment. A nourishing diet: animal food; raw eggs; rum and milk; milk cocoa in place of tea and coffee. Nitrate of silver, 59. Phosphate of iron, 405. Iodide of iron, 32, 390. Quinine and iron, 380. Bark and phosphoric acid, 376. Aloes and pepsine, 155. Aloes and reduced iron, 404. Hypophosphite of soda or lime, 419. Belladonna. Indian hemp. Cod liver oil. Sulphur baths, 125. Continuous galvanic current to lower part of spine. Mineral waters, in early stage, of Barèges, 470; of Marienbad, 497; of Wiesbaden, 489.

Remedies often recommended:—Iodide of potassium. Ergot of rye. Arsenic. Bromide of potassium. Nux vomica and strychnia. Opium. Turpentine. Faradization. Actual cautery, moxa, blisters, and leeches to spine.

6. Hysterical and Rheumatic Paralysis.—In *hysterical* palsy there is neither disease of nervous centres nor of motor nerves. Occurs in hysterical women: produced by fright, over-excitement, ovarian irritation &c. Muscles of lower extremities may be affected (hysterical

paraplegia); or muscles of arm and leg on same side (hysterical hemiplegia); or only one or two particular muscles. Generally, other symptoms of hysteria present. May be cured by remedies which improve general health. Ferruginous tonics. Antispasmodics. Galvanism.

In *rheumatic* palsy muscles of lower extremities often attacked: or extensor muscles of fore-arm, or deltoid and trapezius rendering it difficult to raise arm. May come on suddenly or gradually. To be cured by galvanism, shampooing, iodide of potassium, cod liver oil.

7. Progressive Muscular Atrophy.—From 'A, priv.; τρέφω, to nourish. Synon. *Wasting Palsy; Creeping Palsy; Idiopathic Degeneration of Voluntary Muscles; Atrophie Musculaire avec Transformation Graisseuse.*—Paralysis from a granular and fatty degeneration of muscular fibre, owing to some error of nutrition. Patches of granular degeneration have sometimes been found in those parts of grey substance of spinal cord whence nerves pass off to affected muscles. Also, amyloid corpuscles round central canal of cord. Nerve-cells shrunken and atrophied. Difficult to say whether spinal cord lesion is primary or secondary. The former is rendered more probable than was formerly believed, by researches of Lockhart Clarke.

Symptoms. The pathognomonic feature is a degeneration, and consequent loss of volume and power, of voluntary muscles; without diminution of intelligence or sensibility. May affect upper or lower limbs, or voluntary muscles of whole body.

Fibrillary tremors or convulsive quiverings of some of the fasciculi which form the muscle; produced by irritation of skin: patient unconscious of their occurrence. Unwonted lassitude of limbs, slowly progressing to marked weakness. A withered look, owing to muscular wasting. Occasionally, neuralgic or rheumatic pains. Great sensitiveness to cold. Intellectual powers undisturbed. General health moderately good.—As disease progresses, total deprivation of motion in affected limbs. Patient often has to be fed and carried about like a child. Power of deglutition and articulation may be lost. Fatal asphyxia a common termination,—for, as a consequence of catarrh, bronchitis &c. mucus accumulates in air-tubes: owing to diaphragm and intercostal muscles being involved, no efforts at expectoration can be made. Occasionally, apnœa from paralysis of respiratory muscles.

Duration of disease varies from a few months to some years. Complete recovery rare: progress of disease sometimes suspended, especially when muscles of trunk are not involved. General muscular atrophy spares neither children, adults, nor aged people: partial form most common between thirtieth and fiftieth year. Males suffer more than females. Exposure to wet and cold, or hard work, often assigned as causes. May follow fever, sun-stroke, falls and blows &c. It is hereditary.

Treatment. Attention to digestive organs. Hypophosphite of soda or lime, 419. Nitrate of silver, 59. Frictions of affected muscles. Sulphur baths, 125. Galvanism to wasting muscles. Localized Faradization (electricity of induced or secondary current in

helix round magnet, discovered by Faraday); not giving more than one or two minutes to each muscle, lest it get fatigued, and not prolonging each sitting for more than ten or fifteen minutes.

Remedies which have generally failed:—Strychnia and nux vomica. Mercury. Iodide of potassium. Tonics. Cod liver oil. Setons, issues, or blisters over vertebral column. Cold baths during active stage.

8, Mercurial Palsy.—Synon. *Mercurial Tremor.*—A convulsive agitation of voluntary muscles, increased when volition is brought to bear upon them. In advanced stages, articulation and mastication and locomotion performed with difficulty. Sometimes delirium, or even acute mania. Use of hands almost entirely lost. Epilepsy. Great weakness. Restlessness at nights. Skin acquires a dirty brown hue. Soreness of gums. Teeth turn black, decay.—The sufferers are workmen exposed to fumes of mercury,—gilders of buttons, glass-platers, barometer makers &c. Chemists working with mercuric methide ought to take special precautions to avoid the deadly influence of this very poisonous compound.

Treatment. Withdrawal entirely from injurious atmosphere. Iodide of potassium, 31. Nourishing food. Cod liver oil. Warm baths. Sulphur baths, 125. Galvanism. Sea air.

9. Lead Palsy.—Synon. *Paralysis Saturnina; Metallic Palsy; Painter's Palsy.*—Often follows or accompanies lead colic, though it may exist independently. Operatives in lead-works and mines suffer much from saturnine emanations. Work-rooms where manufacture of white lead is completed have their atmosphere loaded with minute particles of lead compounds; so that workers in them get "leaded,"—become victims of paralysis, colic, gout, sleeplessness, neuralgia, spasms of respiratory muscles, debility and pallor and emaciation &c. Plumbers, painters, colour-grinders, type founders &c. also suffer much.

Symptoms. Poison of lead exerts a peculiar noxious influence over nerves of fore-arm and hand; in consequence of which, extensor muscles of hands and fingers get paralysed, and hands hang down by their own weight when arms are stretched out,—the *wrists drop.* Inferior extremities rarely affected. Frequent attacks of lead colic. Saturnine taste and odour in breath. Formation of a blue or purplish line round edges of gums, just where they join the teeth, a characteristic feature.—Death may occur when system has long been exposed to influence of lead; especially if health be also injured by intemperance, or by frequent attacks of gout.

Treatment. *Curative:*—Iodide of potassium, 31. Galvanism. Sulphur baths, 125.—*Prophylactic:*—All workers in lead should drink sulphuric acid lemonade daily. To avoid intoxicating drinks. Functions of skin to be promoted by cleanliness.

10. Paralysis Agitans.—Synon. *Paralysis Tremula; Tremor; Shaking Palsy.*—Characterised by an involuntary tremulous agitation of muscles; commencing in hands and arms, or in head, and gradually extending over whole body. Diminished muscular power. A propensity to bend the trunk forwards, and to pass from a walking to a gentle running pace. Senses and intellect uninjured. Disease pro-

gresses slowly. When far advanced, agitation may be so violent as to prevent sleep. Deglutition and mastication performed with difficulty. Inclination of body forwards, with bending of chin or sternum. Involuntary escape of fæces and urine. Slight delirium and fatal coma.

Treatment. Few remedies of much use. The effects may be tried of pure air, nourishing food, baths, ferruginous tonics, cod liver oil, and occasional opiates. Benefit may perhaps be obtained from employment of continuous galvanic current, such as can be derived from a Pulvermacher's chain-battery of 120 links.

PARAPHIMOSIS.—From Παρά, beyond; φιμόω, to bind tight. Synon. *Phimosis Circumligata.*—That condition in which a tight prepuce having been drawn back over the glans penis, the latter becomes constricted and swollen, so that the prepuce cannot be replaced.

Symptoms. Great swelling of areolar tissue behind constriction. Mucous membrane of withdrawn prepuce forms a thick and brawny girdle. Congestion of glans penis. Pain, inflammation, anxiety &c.

Treatment. *Reduction:*—Parts to be well oiled: glans to be compressed and gently pushed backwards with right hand, while the prepuce is drawn steadily forwards with the left. Compression of glans sometimes effected by encircling it with a narrow strip of adhesive plaster; or by a loop of tape; or by spoon-bladed forceps. Application of ice, or stream of cold water, before trying reduction, sometimes useful. All failing, a notch or slight division of tight preputial collar with probe-pointed bistoury.

Permanent Cure:—To prevent a recurrence, circumcision may be advantageously practised.—See *Phimosis.*

PARAPLEGIA.—From Παραπληξία, partial paralysis; παραπλήσσω, to strike badly. Synon. *Rachioparalysis; Myeloparalysis; Paralysis Spinalis.*—Paralysis confined to inferior half of body.—See *Paralysis.*

PARASITIC ANIMALS AND PLANTS.—From Παρασιτέω, to flatter another and live at his expense.—See *Entozoa; Epizoa; Epiphytes.*

PAROTITIS.—From Παρα, near; οὖς, the ear; terminal *-itis.* Synon. *Cynanche Parotidea; Mumps.*—A specific and contagious inflammation of salivary glands, and of parotid gland especially.

Symptoms. Chilliness. Slight fever. Pains in limbs. Tumefaction and soreness in one or both parotid regions. Disease reaches its height in four days; then declines. Very rarely runs on to suppuration. Occasionally, during or after decline, testicles or mammæ become painful and swollen.

Treatment. Mild diet. Cold acidulated drinks. Ice. Gentle laxatives. Solution of acetate of ammonia, 349. Carbonate of ammonia, 361. Hot fomentations. Linseed poultices.

PELLAGRA.—From *Pellis*, skin; *ægreo*, to be sick,—unhealthy skin. Synon. *Mania Pellagria; Mal de Sole; Elephantiasis Italica; Scurvy of the Alps.*—A severe constitutional or blood disease attended with an altered state of skin. The eruption merely symptomatic of the vitiated state of system.—Cause not clearly made out. Mostly ascribed to peasants living chiefly on maize,—nine-tenths of their food consisting of this substance made into polenta with coarse bread &c. Objections to this theory:—In Naples, Sardinia, some parts of Switzerland &c. where maize is extensively used, pellagra is unknown or is very rare. Landouzy found thirteen individuals affected with pellagra in a small town of Aragon, where no maize is eaten. Probably disease due to insufficient nourishment, and the use of dry farinaceous food without sufficient fatty matter.

Usually ends in mania, imbecility, and slow death. Softening of periphery of brain has been often met with in autopsies: softening of part of spinal cord almost always.—A common disease in Lombardo-Venetian country. In 1831, official returns showed that amongst the Milanese alone 20,000 individuals were suffering from pellagra. Women more liable than men.

Symptoms. The pellagrosi the most afflicted of individuals. Disease begins insidiously at commencement of warm spring weather, with a shining red spot suddenly arising on back of hand or some part of body. This spot elevates skin, and produces numerous small tubercles. Epidermis dries and cracks, falls off; but shining redness underneath continues. At end of summer, eruption generally disappears; suspended till following spring, when it reappears. This first stage may go on thus for seven or eight years.—The second stage is characterised by the disease setting in with greater constitutional disturbance, general debility, disturbance of nervous system (despondency, cramp, spasm). Convulsions severe: when paroxysm ends, patient becomes a prey to melancholy of a religious character with suicidal tendency. At end of autumn there is a remission but less marked than before. Then next year, symptoms greatly aggravated. Skin all over body, gets dry, rough, and shrivelled: great debility: diarrhœa: breath and sweat most offensive: great flow of saliva. Pain in head, vertigo, delirium; dyspnœa; cramps; bilious vomiting; low fever; dropsy; epilepsy; and, surviving these, mania or fatuity. Disease may not prove fatal for 5, 10, or even 15 years. Its popular name—malattia di miseria—sufficiently justified.

Treatment. *In early stage:*—Removal to healthy locality. Good nourishing food, with milk, fatty matters &c.—*When fairly established:*—All treatment useless, beyond attempts at relieving the most prominent symptoms.

PELVIC CELLULITIS.—From *Pelvis* (Πελλίς or Πέλλα) a bowl: *Cellula* (dimin. of *cella*), a little cell; terminal *-itis.*—Inflammation of the cellular or areolar tissue of pelvis.—Occurs mostly in connexion with abortion, or lingering labour at full term. Also as a consequence of external violence, uterine disease, or some strumous state of constitution.

Symptoms. May come on insidiously. More commonly,—Constitutional disturbance. Fever, headache, restlessness. Local pain and throbbing and tenderness. Aching pains in limbs. Difficult micturition. Tenesmus. Nausea and vomiting. Painful swelling, sometimes appreciable at lower part of abdomen: always detected by vaginal examination.

If morbid action go on to suppuration,—Increased severity of general symptoms. Rigors. Severe throbbing and tenderness. Neuralgic pains down thighs. Fluctuation. Pus may be discharged into upper part of vagina, or bladder, or colon, or rectum: rarely, into peritoneum, causing severe peritonitis: or it will burrow and make its escape externally. Troublesome sinuses sometimes produced. Pus formed again and again for months.

Treatment. Castor oil, 164. Rhubarb and magnesia, 165. Citrate of ammonia or potash, 362. Morphia, chloroform, and Indian hemp, 317. Opiate enemata, 339. Opium and belladonna suppositories, 340. Mercurial and belladonna pessaries, 423. Ammonia and bark, 371. Quinine and mineral acids, 379. Hot hip baths. Fomentations. Linseed poultices. Hot water vaginal injections. Milk, raw eggs, beef tea, arrowroot, tea: animal food as soon as it can be digested. Wenham Lake ice. Sinapisms to epigastrium, if there be sickness. Abscess may sometimes be opened with advantage.

PELVIC HÆMATOCELE.—From *Pelvis*, a basin: *Αἷμα*, blood; *κήλη*, a swelling. Synon. *Retro-uterine Hæmatocele; Peri-uterine Hæmatocele.*—An effusion of blood into peritoneal pouch between uterus and rectum, or into sub-peritoneal tissue behind and around the uterus.

Symptoms. Vary according to amount of loss. If excessive,—Nervous shock. Exhaustion from internal hæmorrhage. Acute pain in lower part of abdomen. Chilliness or shivering: coldness of extremities. Vomiting. Increasing feebleness of circulation. Ghastly expression of countenance. Death may occur in a few hours.

Where loss is great but not excessive,—Violent abdominal pain. Sickness. Chilliness, followed by fever. Anxiety of countenance: pinching and pallor of face. Difficult micturition, with frequent desire to empty bladder. Irritability of rectum. Perhaps, sudden cessation of catamenia if flow be on at the time. Pelvic tumour: appreciable through abdominal and vaginal walls.

In a third class of cases, symptoms of same character but less acute than foregoing. Pelvic tumour: only appreciable by vaginal examination. Fear of peritonitis: of hæmorrhage returning after an interval. Absorption may be hoped for.

Treatment. *In acute cases:*—Brandy. Wine. Opium, in large doses. Sinapisms to extremities. Bladders of ice to lower part of abdomen and vulva.

Where loss is moderate:—Perfect repose in recumbent posture. Opium, in sufficient doses to relieve pain and prevent faintness. Gallic and aromatic sulphuric acids, 103. Alum and sulphuric acid, 115. Ice. Sinapisms to epigastrium. Cold applications to vulva.

Catheterism. Puncture of prominent part of tumour with trocar? Rest and care at two or three succeeding catamenial periods.

PEMPHIGUS.—From Πέμφιξ, a bubble or blister. Synon. *Febris Bullosa; Bladdery Fever; Waterblebs.* — A non-contagious skin disease. Characterised by large round or oval vesicles, or bullæ (*Bulla*, a bubble of water), two or three inches in diameter, which appear on one or more regions. Each bleb filled with alkaline serum; which soon loses its transparency, becoming acid and puriform. Slight fever &c.

Pompholyx (Πομφὸς, a blister) is merely a variety of pemphigus.

Treatment. Ammonia and bark, 371. Nitro-hydrochloric acid, 378. Quinine and steel, 380. Cod liver oil. Effervescing citrate of magnesia, 169. Arsenic, quinine, and steel, 381. Chlorate of potash. Iodide of potassium. Vesicle to be punctured: cuticle not to be removed.

PENIS CANCER.—Carcinoma of the male organ is generally of the epithelial kind. Commences as a warty or cauliflower-looking growth on inner surface of prepuce: followed by unhealthy and very destructive ulceration. Lymphatics on dorsum of penis, and the glands in the groin, gradually get involved. Sanious discharges. Retention of urine. Cancerous cachexia. Painful death.—The disease may result from irritation of retained secretions of corona glandis in phimosis, where there is predisposition to cancer.—Early and complete amputation offers the only hope of cure. The author has had a case under treatment, where the penis was amputated for relief of disease of a "cancerous nature" by Mr. Clement of Shrewsbury in the year 1847; the patient having died (June 1866) from cancer of the face and left tonsil, after enjoying good health for nearly seventeen years.

PERFORATION OF STOMACH. — In cancerous as well as in simple ulceration of stomach perforation may occur, with escape of contents into peritoneum. Where this viscus has contracted adhesions, a communication may fortunately only form between stomach and outside of abdomen; or between stomach and colon or duodenum; or even between stomach and pleural cavities, lungs, or pericardium. —See *Gastric Ulcer; Gastric Cancer; Gastro-Cutaneous Fistula; Gastro-Colic Fistula.*

PERICARDITIS.—From Περὶ, about; καρδία, the heart; terminal *-itis.* Synon. *Exocarditis; Inflammation of the Pericardium.*—Inflammation of the external fibro-serous covering of heart. May be regarded as a local manifestation of constitutional disease. Occurs most frequently in connexion with acute rheumatism, Bright's disease, ichorhæmia, and scurvy.

Symptoms. Sometimes so slight that disease is not suspected. When there is only a slight exudation of fibrin, or when effused serum has been rapidly absorbed and adhesions early affected, there may be only a feeling of fever and oppression. If effusion be copious (hydro-

pericardium) so as to press on heart and embarrass its movements, or when there is co-existent myocarditis, symptoms much more decided. High fever, as ascertained by thermometer; pain in cardiac region, darting through to left scapula, upwards to left clavicle and shoulder, and down arm; tumultuous action of heart; irregularity of pulse; dyspnœa; inability to lie on left side; anxiety of countenance; noises in ears, giddiness, epistaxis &c. As disease advances,—Extreme debility, cough, suffocative paroxysms, tendency to syncope, œdema of face and extremities. Great restlessness, distortion of features, tetanic spasms, delirium.

Physical signs:—(1) Sensations of friction communicated to hand. (2) Friction-sounds; an alternate rubbing, or to-and-fro sound. (3) Extension of dulness over heart, owing to serous effusion. (4) Friction-sounds attended with, or preceded by, valvular murmurs. (5) Signs of eccentric pressure analogous to those of empyema. (6) Signs of excitement of heart. (7) Signs of weakness or paralysis of heart.

Treatment. Perfect quiet in bed. Temperature of room 65° to 70° F. Neutral salts, if there be constipation, 141, 144, 150, 152. Opium, in full doses. Opium and belladonna, 344. Bicarbonate of potash (gr. 30 every two or three hours). Bicarbonate of potash drink, 355. Cream of tartar drink, 356. Chlorate of potash drink, 360. Poppy-head fomentations. Large linseed poultices. Belladonna and opium, over cardiac region, 297. Vapour baths.—Light diet,—Gruel, arrowroot, milk, mutton broth. As soon as strength fails,—Soup, essence of beef, raw eggs, wine.

When effusion is abundant:—Iodide of potassium, 31. Red iodide of mercury, 54. A succession of blisters. As a forlorn hope, tapping of pericardium.

Remedies sometimes used:—Mercury. Tartarated antimony. Digitalis. Drastic purgatives. Bleeding. Leeches. Blisters.

PERINEPHRITIC ABSCESS.—From Περὶ, around; νεφρὸς, the kidney.—Abscess of the areolar tissue surrounding the kidney.—See *Abscess of Abdominal Walls.*

PERIOSTITIS.—From *Periosteum* (Περὶ, round about; ὀστέον, a bone); terminal *-itis.* Synon. *Inflammatio Periostei.*—Inflammation of the periosteum may result from injury, syphilitic taint, rheumatism, abuse of mercury, and from atmospheric exposure acting upon broken down constitutions.

Symptoms. Pain, generally aggravated at night; very acute if subjacent bone be involved. Tenderness. Thickening of inflamed part from deposit of plastic matter, forming a tense elongated swelling,—a *node.* Constitutional disturbance; varying from slight impairment of health, to acute inflammatory fever. Restless nights. Mental depression. Rigors indicate suppuration.

Treatment. Calomel and opium. Corrosive sublimate. Red iodide of mercury. Iodide of potassium, 31. Syrup of iodide of iron. Morphia and Indian hemp, 317. Cod liver oil.—*Locally:*—Leeches,

rest, and hot fomentations (in acute cases). Iodine liniment. Blisters. Friction with equal parts of belladonna and mercury liniments. Subcutaneous incisions through the membrane down to the bone, to relieve periosteal tension when excessive, or to prevent suppuration when imminent. Early incision, through skin and periosteum, when there is pus beneath the membrane.

PERITONITIS.—From Περιτείνω, to stretch all over; terminal *-itis*. Synon. *Inflammatio Peritonei.*—Inflammation of the serous membrane lining abdominal and pelvic cavities, and investing the viscera. May be acute or chronic:—

1. Acute Peritonitis.—Acute inflammation of peritoneum a serious disease. Accompanied with pain and swelling of abdomen, and severe symptomatic fever.

Symptoms. Pain, gradually extending over whole abdomen. Sometimes, chilliness and rigors. High fever. Exquisite tenderness of abdomen; increased by slightest pressure, and by any movement calling abdominal muscles into action. Patient lies on the back, with knees bent and legs drawn up. Abdomen tense, hot, and often tympanitic. Constipation; nausea and vomiting; dry burning skin; rapid feeble pulse; hurried respirations; often, hiccough; and tongue thickly furred. Countenance expressive of anxiety and suffering. After a time, belly ceases to be tympanitic but remains enlarged from effusion of serum. When disease is about to end fatally, abdomen usually gets much distended; pulse thready and very quick; face assumes a ghastly expression; cold clammy sweats; and death takes place from exhaustion within eight or ten days of onset.

Treatment. Opium, 344. Opiate suppositories, 340. Opium and aconite, 332. Opium and belladonna, 344. Poppy head fomentations. Belladonna and opium, with fomentation flannels. Hemlock poultice. Linseed poultice. Turpentine stupes. Leeches. Enemata of warm soapy water, if there be fæcal accumulation in colon or rectum.

Diet:—At first to be restricted to milk and water, tea, arrowroot, beef tea, ice, iced water, barley water. Lime water and milk, 14. When exhaustion sets in, brandy; aromatic spirits of ammonia; spirit of ether; brandy and egg mixture, 17. Essence of beef, 3.—Most perfect quiet. Air of sick room to be warm but pure. A cradle over abdomen to support bed-clothes. Good nursing.

Remedies sometimes employed:—Bloodletting. Blisters. Calomel and opium. Tartarated antimony. Tobacco enemata. American hellebore. Antiphlogistic regimen.

2. Chronic Peritonitis.—Sometimes the sequel of an acute attack: more frequently an independent affection. May be due to presence of tubercles on peritoneum,—*Tubercular peritonitis.*

Symptoms. Somewhat obscure. Abdominal pain slight. Attacks of colic: perhaps fever with obstinate diarrhœa. Tenderness and swelling of abdomen. Nausea. Anæmia and wasting. Abdominal enlargement from effusion. When with tubercular peritonitis there

is disease of mesenteric glands, phthisis &c., the case rapidly runs on to fatal termination.

Treatment. Attention to bowels. Mild but nutritious diet: milk or cream; cocoa; raw eggs; solution of raw meat, 2. Cod liver oil. Iodide of iron. Quinine or bark. Chemical food, 405. Hypophosphite of lime, or soda, and sumbul, 419. Pepsine, 420. Diluted iodine liniment to abdominal wall. Iodine and cod liver oil ointment, 308. Iodide of cadmium ointment, 312. Blisters. Sea air.

PERITYPHLITIS.—From Περὶ, around; τυφλὸς, blind; terminal *-itis*. Inflammation of the areolar tissue connecting the cæcum with the psoas and iliac muscles.

Symptoms. Severe pains shooting from right iliac region. Diarrhœa and tenesmus. Nausea. Mental depression. Fever.—Parts around seat of inflammation become swollen. Frequently suppuration. When abscess opens into cavity of cæcum, recovery often follows.

Treatment. See *Cæcitis*.

PERTUSSIS.—From *Per*, very; *tussis*, a cough. Synon. *Tussis Convulsiva; Whooping-cough; Chincough &c.*—See *Hooping-cough*.

PHARYNGITIS.—From Φάρυγξ, the gullet; terminal *-itis*. Synon. *Cynanche Pharyngea*.—Inflammation of the pharynx not as common a disease as might be expected.

Occasionally, especially in hospitals and workhouses, walls of pharynx are affected with *diffused erysipelatous inflammation*. Attended with low fever, difficulty in swallowing, rapidly increasing prostration. Morbid action may run on to sloughing. Death from exhaustion not uncommon. The remedies are, — Ammonia and bark, 371. Chlorate of potash and steel, 402. Quinine, 379. Ether and brandy, 367. Wine or brandy. Raw eggs. Restorative soup, 2. Thorough ventilation of sick-room.

Syphilitic ulceration of velum and fauces may, after healing, produce narrowing and contraction of upper part of throat so as to impede deglutition and obstruct respiration. Incising edges of contracted opening sometimes useful. In severe cases, tracheotomy. The tracheal tube has been worn with comfort for years.

Elongation of uvula may result from chronic inflammation, or from a generally relaxed state of fauces. By irritating pharynx and epiglottis the hypertrophied uvula produces a troublesome tickling cough, with occasional inclination to vomit. Astringent gargles, application of nitrate of silver, nourishing food, and ferruginous tonics failing to cure, two-thirds of the organ had better be snipped off.—See *Retro-Pharyngeal Abscess*.

PHIMOSIS. — From Φιμόω, to bind tight. Synon. *Ligatura Glandis; Strictura Præputii*.—A preternatural constriction of the foreskin, preventing its being drawn back over the glans penis. May be congenital or acquired.

Symptoms. In children, a long and contracted foreskin often gives

rise to symptoms resembling those of stricture, or of stone in the bladder. Irritation, from inability to wash away secretions of corona glandis. In adults it may result from the inflammation of a gonorrhœa, or of a chancre. Swelling, from inflammation of areolar tissue. Irritation, from accumulation of discharges; which may produce balanitis, and in after life epithelial cancer,—if there be any predisposition.

Treatment. *Palliative:*—Warm bathing. Fomentations and poultices. Tobacco or belladonna lotions. Injection of astringent lotions under prepuce. Stretching with bougies; with blades of dressing forceps. —*Radical cure:*—Circumcision. Slitting up of prepuce on dorsal aspect as far as the corona; and stitching of edges of mucous lining to skin. Water dressing after either operation.—See *Paraphimosis.*

PHLEBITIS.—From Φλὲψ, *φλέβος*, a vein; terminal *-itis.* Synon. *Inflammatio Venarum.*—Inflammation of the veins depends upon, or is accompanied by, a morbid state of the blood. The history of phlebitis is that of the coagula (thrombi) formed within the affected veins, and of the metamorphoses through which these coagula pass (Virchow).

Symptoms. Pain, increased on pressure; swelling, stiffness, and redness in course of vessel, generally spreading upwards towards heart. When suppuration results, rigors and flying pains in various parts of body. Constitutional disturbance always great. The result of admixture of pus or other morbid fluids with blood is to cause the latter to coagulate: in this way a vein sometimes becomes filled with a coagulum; if morbid matter is of such a nature that it ought to be eliminated, the areolar tissue around inflames, suppuration and abscess follow, coats of vein ulcerate, and contained clot is discharged by means of the abscess. On the contrary, if poison does not produce coagulation, it mixes with the blood, affects entire system, and is subsequently deposited in distant parts—lungs, liver, spleen, eye, joints, areolar tissue &c.

Treatment. Ammonia and bark, 371. Chlorate of potash, 61. Sulphite of soda or magnesia, 48. Quinine, 379. Brandy and egg mixture with opium, 318. Opium, or opium and belladonna, 344. Morphia, chloroform, and Indian hemp, 317. Essence of beef, 2. Eggs, cream, and extract of beef, 5. Lime water and milk, 14. Port wine or brandy.—Perfect repose. Fomentations. Linseed poultices. Hemlock poultices.

PHLEBOLITES.—From Φλὲψ, a vein; *λίθος*, a stone. Synon. *Vein Stones.*—Small calculi, from size of millet seeds to that of peas, occasionally found in the veins. Frequently, produce no obstruction: they lie in dilatations. Chiefly composed of phosphate of lime, carbonate of lime, and animal matter. Probably formed by calcareous deposits from the blood, having a small clot as a nucleus.

PHLEGMASIA DOLENS.—From Φλέγω, to burn: *doleo*, to be in pain. Synon. *Phlegmasia Alba Dolens; Œdema Lacteum; Crural Phlebitis; Obstructive Phlebitis; White Leg; Milk Leg; White*

Swelling of Lying-in Women.—A brawny, non-œdematous, painful swelling of one or both lower extremities, attended with prostration. Probably depends on spontaneous coagulation of blood within internal or external iliac and femoral veins: coagulation due to some poisonous or acrimonious fluid entering the veins, or merely to cachectic state of system. Most probably, lymphatics also involved: they become obstructed.—Not uncommon after parturition, especially in women weakened by flooding &c. Frequently occurs towards termination of uterine cancer.—Left leg more often attacked than right.

Symptoms. Commence in from one to five weeks after labour. Fever; headache; thirst; nausea; pain. Sometimes, chills, or rigors. Swelling and loss of motor power in affected extremity. Limb unnaturally hot; tender; non-œdematous, but swollen perhaps to twice its natural size; of pale white colour, tense and elastic; having a glazed or shining appearance.—After subsidence of acute symptoms, limb often remains enlarged for many weeks.

Treatment. *Acute stage:*—Ammonia in effervescence, 362. Carbonate of ammonia, 361. Chlorate of potash, 61. Sulphite of soda or magnesia, 48. Hydrochloric acid. Opium. Aconite. Iodide of potassium. Quinine. Simple diet. Diluents.—Perfect rest. Fomentations.—*Chronic stage:*—Iodide of iron, 32. Iodide of potassium and bark, 31. Ammonia and bark, 371. Phosphate of iron, 405. Nourishing food: milk, wine, and malt liquors.—Bandaging. Friction with stimulating liniments. Cold water douche. Flying blisters.

Remedies sometimes employed:—Venesection. Leeches. Blisters. Evaporating lotions. Mercurial ointment. Calomel. Blue pill. Digitalis. Creasote. Antiphlogistic regimen.

PHOTOPHOBIA.—From Φῶς, light; φοβέω, to dread. Synon. *Phenophobia; Aversion to Light.*—Intolerance of light is a painful symptom in many diseases of the eye,—*e.g.* strumous ophthalmia, sclerotitis &c. It may often be relieved by protecting the eye with a large green shade or veil, or by spectacles with glasses of a neutral tint. By darkening the room, with careful avoidance of subsequent sudden admission of light. Hot fomentations; or the steam of hot water, medicated with extract of belladonna or extract of poppies. Hemlock poultices over eye. Exposure of the eye to the vapour of twenty or thirty drops of chloroform placed in the warm hand. Small blisters behind the ear, or on temple. Painting skin of upper eyelid with tincture of iodine.

The constitutional remedies will be those required by the disease of which the photophobia is only one of the results.

PHRENITIS.—From Φρήν, the mind; terminal *-itis*. Synon. *Cephalitis; Cerebritis; Brain Fever.*—See *Cerebral Inflammation.*

PHTHIRIASIS.—From Φθεῖρ, a louse. Synon. *Morbus Pedicularis; Phtheiriasis; Pediculatio; Lousiness.*—Human body may be infested with three kinds of lice:—*Pediculus corporis* vel *vestimen-*

torum; Pediculus capitis or *head louse;* and *Pediculus pubis* or *crab louse.* All are oviparous, the eggs being known as *nits:* sexes distinct: young are hatched in five or six days, and in eighteen days are capable of reproduction.

Treatment. Free washing with yellow or soft soap and hot water. Sulphur bath, 125. Mercurial vapour bath, 131. Mercurial ointment. Dusting with calomel. Corrosive sublimate lotion (gr. 2 to fl. oz. j). Sulphur ointment. Cocculus ointment. Infusion of tobacco. Nits to be combed away, after washing the hairs with vinegar or spirits of wine.

PHTHISIS.—From $\Phi\theta\acute{\iota}\omega$, to waste away.—Synon. *Tabes Pulmonum; Tubercular Phthisis; Pulmonary Consumption; Decline.*—Phthisis may be inherited or acquired. Left lung suffers most frequently. Apices and posterior parts of upper lobes most frequent seats of deposit at first. No period of life exempt from this scourge.—See *Tuberculosis.*

1. Acute Phthisis.—This form very rare. Commences suddenly with shivering, fever, rapid pulse, pain, cough, dyspnœa. Shortly afterwards, hectic fever, profuse sweating, diarrhœa. Rapid degeneration of lung substance, cavities quickly forming. Increasing emaciation. Death from exhaustion, perhaps in from three to twelve weeks of commencement of disease.—Tubercle generally spread all through lungs: deposit often begins in middle and lower lobes.

2. Chronic Phthisis.—The variety ordinarily met with. The tubercle may be confined to one or both lungs; or it may be deposited also in mesenteric glands, tissues of intestinal walls, kidneys, liver, nervous centres &c.

Symptoms. Gradually increasing cough, hæmoptysis, debility, expectoration, loss of appetite and dislike to fatty food, dyspepsia, accelerated pulse, pyrexia, slight dyspnœa, loss of flesh, sweating, diarrhœa. Weakness of voice, or hoarseness. A festooned appearance at reflected edge of gums. So long as tubercle is being deposited the temperature of the body is raised, so that it may reach to 105° F. Dull aching pain under clavicles or scapulæ. Sometimes, fistula in ano one of earliest symptoms.

Hæmoptysis most frequent in early stage: it is very rarely fatal. Aphthæ about mouth and fauces. Mucous membranes of bronchi, larynx, and pharynx apt to get affected with low form of inflammation: tubercle sometimes deposited in submucous tissue of these organs. Disturbance of uterine functions in women: cessation of catamenia. Congestion and tenderness of liver. Incurvation of finger nails: clubbed appearance of ends of fingers. The debility and emaciation become more and more marked. Profuse night sweats. Diarrhœa: either due to disordered secretions, or to ulcerations about ileum and colon. Urine sometimes contains albumen, or sugar. Tenderness and œdema of extremities. Mental faculties usually remain clear until death.

Physical signs:—At *first,* if tubercular deposit be considerable,

flattening of infra- and supra-clavicular regions. Defective expansion of upper and front part of affected side. Dulness on percussion. Harsh or tubular inspiration. Act of expiration prolonged. Bronchial respiration and bronchophony. A systolic bruit under one or both clavicles.—In *second* stage, more marked depression of infra- and supra-clavicular regions. Deficiency of chest movement. Decided dulness on percussion, unless amount of tubercle be small and surrounded by emphysematous lung. Large crepitation. Puerile breathing in sound lung.—In *third* stage, great depression below clavicle. Flattening of whole of affected side. Retraction of intercostal spaces. Heart's impulse seen and felt at higher point than normally. Dulness on percussion, owing to solidity of layer of lung forming wall of cavity. Gurgling. Cavernous respiration, if cavity be empty or nearly so; amphoric resonance and pectoriloquy, if it be also large.

For diminution of Vital capacity, see *Spirometry*.—For extent of Loss of weight, see *Weight of Body*.

Treatment. *General rules*:—Improvement of general nutrition. Attention to quantity and quality of food. Residence in a healthy climate: not necessarily a warm one. Exercise in open air, preferably without fatigue,—by driving, sailing &c. Ensuring purity of air in apartments occupied. Warm clothing: flannel or chamois leather next the skin. Daily tepid sponging, preferably with salt water: friction with coarse towels, flesh-brush. Strength on no account to be lowered: exacerbations of fever to be treated by simple salines, omitting tonics for a couple of days or so. In early stage, any complication (such as fistula in ano) may be cured by operation.

Diet:—Most nutritious. Animal food, so long as it can be digested. Pepsine, 420. Milk; cream; raw eggs. Iceland moss and quinine jelly, 13. Milk, flour, and steel, 16. Saccharated solution of lime with milk, where there is acidity of stomach. Rum and milk. Brandy. Port wine or sherry. Burgundy. Champagne. Hungarian wines (Ofner Auslese, Szamarodnya Muscat, Carlowitz &c.). Stout; bitter ale; Scotch ale; Guinness' stout. Too long an interval not to elapse between meals.

Change of air and scene:—Very valuable in early stages. Patients requiring a relaxing or sedative atmosphere in this country may be sent to Torquay, 436. Undercliff of Isle of Wight, 434. Sandgate, 431. Hastings, 432. Penzance, 437.—Where a more bracing air is suitable, Brighton, 432. Southport, 439. Queenstown, 440. Western coast of Scotland, 431.—If a more complete change than this country affords be wished for, Mentone, 443. Cannes, 443. Ajaccio, 444. Malta, 449. Malaga, 445. Algiers, 451. Madeira, 452.—Colony of Natal, 453. Canada, 454.—When a sea voyage is indicated, Australia or New Zealand, 457.

Drugs:—Cod liver oil, 389. Ozonized cod liver oil. Cod liver oil and bark enemata, 22. Inunction with oil, 283. Steel and cocoa-nut oil, 391. Steel and glycerine, 392. Hypophosphite of soda or lime, 419. Bark in full doses. Various preparations of iron, 380, 394, 397, 401, 403, 405 &c. Iodide of iron. Quinine. Liquor potassæ. Carbonate of ammonia.—*If there be hæmoptysis*:—Iron

alum, 116. Gallic acid, 103. Tannin and nitric acid, 99. Oil of turpentine, 102. Lead and acetic acid, 117.—*To relieve cough*:—Opium or morphia, 315, 316, 317, 346, 347 &c. Decoction of Iceland moss. Demulcent drinks, 19.—*If heart's action be irritable*:—Hydrocyanic acid. Digitalis.—*To check night-sweats*:—Oxide of zinc, 111. Gallic acid. Mineral acids with bark. Sponging body with very hot water.—*To check diarrhœa*:—Rhatany, 96. Catechu, 97. Vegetable charcoal, 98. Matico and rhatany, 105. Sulphate of copper and opium, 106. Nitrate of silver and opium, 107. Kino and logwood, 108. White bismuth, 112. Astringent enemata, 113.—*To check expectoration, and lessen laryngeal irritation*:—Turpentine inhalations, 260. Hydrocyanic acid inhalations, 261. Inhalation of spray medicated with tannic acid, turpentine, steel &c. 262. Sponging epiglottis, pharynx, and even interior of larynx with solution of nitrate of silver.

Local applications to chest walls:—Iodine liniment. Dry cupping. Croton oil liniment, 303. Succession of small blisters. Blisters, kept open by savine ointment or by Albespeyre's plaster, 208. Issues, or setons, below clavicle. Frequent sinapisms. Turpentine stupes. Friction with salt water; cod liver oil, 283; salad oil; belladonna and aconite liniment, 281.

Remedies which have been recommended:—Pancreatine and pancreatic emulsion. Naphtha. Malt (Byne). Bromide of iron. Peroxide of hydrogen. Acetic acid. Actea racemosa. Hydrosulphuret of ammonia. Iodide of ammonium. Glycerine. Common salt. Sulphur. Codeia. Digitaline. Phosphorus. Carbonate of lead. Sanguinaria Canadensis. Arsenic. Oxalic acid. Phosphate of lime. Tartarated antimony. Mercury and chalk. Colchicum. Excreta of reptiles. Daily emetics. Frequent small bleedings. Inhalations of naphtha; chlorine; carbonic acid; oxygen gas; iodine; tar vapour. Arsenical cigars. Stramonium cigars. Turkish baths. Laying open cavity by incision through intercostal space, and treating it as a chronic abscess.

PIARHÆMIA.—From Πῖαρ, fat; αἷμα, blood. Synon. *Lipæmia; Pioxæmia.*—Milkiness of the serum or fatty blood is met with under certain circumstances in disease. Its physical causes are two—viz., free fat, and molecular albumen.

(1) Piarhæmia a *physiological* result of digestion, pregnancy, lactation, and hybernation. During digestion, lactescence of serum begins about two hours after ingestion of aliment, and continues for two or three hours. The serum is turbid, opalescent, and semi-opaque; a condition only transitory, and due to absorption of fatty matters of food, formed into an emulsion by pancreatic juice, and absorbed as such in duodenum. Examined microscopically, the serum is found to contain a large number of fat globules and of molecular granules of albumen. The passage of chyle into the blood renders the serum turbid; this turbidity lasting until insoluble fatty matters—oleine, stearine, and margarine—enter into combination with free soda of blood, and become converted into oleic, stearic, and margaric acids.

(2) Lactescent serum a *pathological* result of disease. The cases in which its occurrence has been noted are diabetes, chronic alcoholism, dropsy, jaundice, nephritis, hepatitis, pneumonia, and especially Bright's disease.

PIOXÆMIA.—From Πίων, fat; αἷμα, blood.—Fatty blood.—See *Piarhæmia.*

PITYRIASIS.—From Πίτυρον, bran. Synon. *Herpes Furfuraceus; Branny Tetter; Dandriff; Dandruff.*—A chronic, non-contagious, squamous inflammation of the skin; attended with slight redness and much irritation. Characterised by production of minute white scales, or scurf, in great quantity. May attack any region: scalp and parts covered with hair most common seats of it—*pityriasis capitis.* Desquamation takes place copiously and incessantly, often for months. When occurring in red and rough patches, it is known as *pityriasis rubra.*

Treatment. *Locally:*—Warm baths. Conium and starch baths, 122. Borax baths, 129. Gelatine baths, 122. Lotion of glycerine and water, equal parts. Glycerine and lime water, 286. Lime liniment. Borax and glycerine, 268. Morphia and solution of potash, 266. Nitrate of mercury ointment, 305. Calomel ointment.

Internally:—Arsenic, 52. Cod liver oil. Corrosive sublimate. Colchicum.

PLAGUE.—From *Plaga* (πληγή) a blow or wound. Synon. *The Black Death; Pestilential Fever; Levant Plague; Septic* or *Glandular Pestilence.*—A continued contagious fever, bearing a striking resemblance to typhus.

Symptoms. A period of incubation, varying from a few hours to three weeks. Petechiæ. Buboes, from effect of poison on the cervical, axillary, inguinal, and mesenteric glands. Carbuncles. Fever. Diarrhœa. Vomiting. Great congestion and softening of heart, liver, and spleen. Intense prostration. Suppression of urine. Attacks of hæmorrhage. Convulsions, coma, or fatal exhaustion.

Treatment. Emetics. Mild aperients. Diaphoretics. Salines. Mineral acids. Disinfectants. Cold affusion.—Friction of body with oil, as a preventive measure. Avoidance of contact.

PLETHORA OR FULNESS OF BLOOD.—Synon. *Polyæmia; Hæmatoplethora; Hyperæmia.*—Partial plethora, or a local congestion or determination of blood, is the superabundance of this fluid in one or more particular organs or tissues.—See *Hyperæmia.*

PLEURISY.—From Πλευρά, the side; the pleuræ being the serous membranes which invest the lungs and inner surface of thoracic walls. Synon. *Pleuritis; Inflammatio Pleuræ; Morbus Lateralis.*—Inflammation of the pleura runs an acute or chronic course. One side only may be affected, or both—bilateral pleurisy.

Symptoms. Chilliness, or slight rigors. Fever. An acute lanci-

nating pain in the side, called "a stitch:" situated commonly below nipple, over antero-lateral attachment of diaphragm. Pain aggravated by expansion of lung in inspiration, coughing, lying on affected side, and by pressure. A short harsh cough. Hot and dry skin: temperature of body varies from 101° to 105° F. Flushed cheeks. Hard and quick pulse. Slightly increased frequency of respirations. Anxiety and restlessness. Scanty and high-coloured urine.—Physical signs:—At first a *friction sound;* caused by the dry and inflamed pulmonary and costal surfaces of the pleura rubbing against each other. This rubbing may be felt by hand. It soon ceases: as the inflammation is resolved, and the two surfaces become moist and smooth; or the surfaces get adherent, the exuded lymph forming a pseudo-areolar tissue; or the surfaces become separated by effusion of serum, a kind of dropsy resulting, known as *hydrothorax.* Quantity of effusion varies from a few ounces to several pints: when excessive it compresses yielding lung, suspends its functions, displaces heart, and somewhat distends thoracic parietes.

When pleurisy ends in suppuration, and pus accumulates in cavity of chest, the condition is known as *empyema.* The pus sometimes forms a bulging tumour in an intercostal space, with appreciable fluctuation. Occasionally, ulceration of costal pleura follows, extends through muscles, and forms an external aperture (a parietal fistula) through which pus is discharged. Or, pulmonary pleura may be perforated, an opening form into air-tubes (a bronchial fistula), and pus be expectorated.

Whether matter effused be serum, or serum mixed with blood, or pus, there will be dulness on percussion. Auscultation detects a diminished respiratory murmur. If lung be compressed, so that air only enters bronchial tubes, no vesicular murmur at all will be heard; but instead, *bronchial respiration,* and *bronchial voice* or *bronchophony.* Perhaps also, *œgophony.* When compression is complete, so that air cannot even enter bronchi, no sound will be audible. On healthy side, respiration *puerile.* Patient cannot lie on sound side, because movements of healthy lung become impeded by superimposed weight of dropsical pleura. Affected side, enlarged: intercostal muscles, inactive; spaces, obliterated or even bulging; fulness of infra-clavicular region; shoulder depressed. Pleuritic effusion occurs most frequently on left side.—When absorption of effusion occurs, and owing to adhesions the lung cannot expand, there will be a shrinking inwards of affected side.

In *latent* pleurisy, there may be neither pain, cough, or dyspnœa. Yet effusion may occur until one-half of chest is found full of fluid.

Treatment. Perfect rest in bed. Avoidance of talking, or of full inspirations, so as to prevent undue friction between inflamed surfaces. A fine flannel bandage round chest lessens the movements of ribs. Large hot and moist linseed poultices, covered with extract of poppies. Poppy-head fomentations. Sinapisms. Turpentine stupes. Cupping to three or four ounces, often relieves severe pain more quickly than other measures. Aperients, if there be constipation. Subcutaneous injection of morphia, 314. Opium. Aconite. Citrate of potash and

ammonia, 211. Ether and ammonia, 212. Diet of gruel, milk, arrow-root, tea, and broths. Soda water. Lemonade. Cream of tartar drink, 356. Indian sarsaparilla and barley water, 20.—Tonics and good food, during convalescence.—Quinine, nourishing soups, and wine if patient be aged, or when symptoms assume a typhoid character.

To promote absorption of effused fluids:—Moderate diet, free from stimulants. Sinapisms to diseased side. Flying blisters, frequently repeated. Friction with ointment of red iodide of mercury. Iodide of potassium, 31. Squills, digitalis, and blue pill, 28. Iodide of iron. Cod liver oil.—Tapping the thorax, after failure of foregoing remedies. In empyema, tapping with use of drainage tube.

Remedies sometimes employed:—Calomel, or blue pill. Tartarated antimony. Colchicum. Hydrochlorate of ammonia. Hydrocyanic acid. American hellebore (Veratrum viride). Digitalis. General bleeding. Leeches. Blisters.

PLEURODYNIA.—From Πλεῦρά, the side; ὀδύνη, pain. Synon. *Pleuralgia; Pleurodyne; Rheumatism of Walls of Chest; False Pleurisy; Stitch in the Side.*—Chiefly of importance because the pain, which is often severe, may be wrongly attributed to pleurisy or pericarditis, or even to peritonitis.

Symptoms. General health impaired. Loss of appetite. Low spirits. Urine loaded with urates or phosphates. In exceptional cases, rheumatism of joints. Acute pain, often coming on suddenly, frequently referred to infra-mammary region: increased by a deep inspiration, or by any movement which stretches the muscles. In nineteen cases out of twenty, muscular and fibrous textures of left side of chest alone affected.

Treatment. Ammonia, aconite, and bark, 371. Iodide of potassium, 31. Subcutaneous injection of morphia or chloroform, 314. Cod liver oil. Warm baths. Turkish baths, 130. Sulphur baths, 125. Belladonna and opium liniment, 281. Veratria ointment, 304. Hot linseed poultices. Sinapisms. Animal food: milk. Steel, milk, and flour, 16. Light wines. Brandy and soda water.

Cupping, leeching, blistering, and purging will only render the disorder more intractable.

PLEURO-PNEUMONIA.—Synon. *Pleuroperipneumonia.*—Inflammation, attacking simultaneously the pleura and lung.—Pneumonia may happen without pleurisy. But when the pleura is involved in the inflammation, the pneumonia forming the chief affection, the double disease is known as *pleuro-pneumonia.* If the pleurisy predominate, it is sometimes called *pneumo-pleuritis.*—See *Pneumonia.*

PLICA POLONICA.—From *Plico,* to twine together. Synon. *Trichosis Plica; Trichoma; Polish Ringworm.*—A disease of the hair, probably allied to common ringworm of this country. Endemic in Poland, and some parts of Russia and Tartary. Characterised by tenderness and inflammation of scalp; hairs become swollen and imperfectly formed; hair-follicles secrete a large quantity of viscid

reddish-coloured fluid, which glues the hairs together, and unites them into tufts or felt-like masses. Two cryptogamic plants—the Tricophyton tonsurans and Tricophyton sporuloides—have been detected by a minute examination. Sometimes, matted hairs loaded with pediculi. Disease not confined to scalp, but may involve hairs on any part of integument. Odour from affected parts said to be most disgusting.

Treatment. See *Tinea.*

PNEUMONIA.—From Πνευμονία, a disease of the lungs. Synon. *Pulmonitis; Inflammatio Pulmonum; Peripneumony.* — Acute inflammation of the substance of the lungs. Right lung suffers twice as often as left. Lower lobes more frequently attacked than upper. Average duration of uncomplicated cases about fourteen days.

Symptoms. Disease ushered in with restlessness and general febrile disturbance. At end of one to three days, rigors; followed by nausea, cough, expectoration of viscid and rust-coloured sputa, pain in side, distressed breathing, a pulse reaching to 140 or even 160 beats in minute, temperature of body raised perhaps to 105° F., thirst, loss of appetite, prostration, headache, and perhaps transient delirium.

Each case may be said to consist of three stages:—(1) That of *engorgement* or *splenization*, in which substance of affected part gets loaded with blood or bloody serum. On auscultation, minute crepitation, or crepitant rhonchus, is heard; at first, mingled with vesicular murmur. Percussion, at commencement, affords natural resonance, which gradually becomes obscured.—(2) If the inflammation proceed, it passes into stage of *red hepatization;* in which spongy character of lung is quite lost, and it becomes hard and solid. Neither minute crepitation nor vesicular murmur can now be heard: bronchophony often present, with bronchial respiration. Dulness on percussion.—(3) When disease still advances, there is reached the stage of *grey hepatization*, or *purulent infiltration;* consisting of diffused suppuration of pulmonary tissue, parts of lung remaining dense and impermeable. Often, no true suppuration: appearance of such simulated by liquefied exudation matter. When portion of lung breaks down and pus is expectorated, large gurgling crepitation will be heard.—If inflammation subside before reaching stage of purulent infiltration, as it often does, the hepatized state may remain permanent or gradually cease. In latter case, air begins to re-enter affected part of lung; as evidenced by return of minute crepitation, mingled with and then superseded by healthy vesicular murmur.

For first day or two of pneumonia a normal amount of chlorides will be found in the urine; the quantity diminishing as inflammation advances, until they have disappeared by time hepatization is complete. As latter recedes, the chlorides reappear. A deficiency of chloride of sodium in urine not peculiar to pneumonia.—Occasionally, in depressed constitutions, pneumonia ends in diffused, or in circumscribed, gangrene.

Chronic pneumonia may occur as sequel of acute disease; giving rise to persistent consolidation of a portion of pulmonary tissue. May

be mistaken for solidification due to tubercle. It causes weakness, emaciation, cough, attacks of feverishness, loss of appetite, and sense of oppression about chest.

Treatment. *Acute form:*—Perfect rest in bed. Temperature of sick room not to fall below 65° F. Air to be kept moist by steam. A dose of castor oil, if there be constipation. Solution of acetate of ammonia, 211. Small doses of opium, if there be pain or restlessness. Vapour of chloroform, to relieve cough and dyspnœa. Carbonate of ammonia, if there be much debility, 212. Large linseed poultices, or poppy-head fomentations, to affected side of chest. Turpentine stupes. Light diet, with plenty of cold water. Strong beef tea, wine or brandy, milk or cream, as soon as there are indications of exhaustion. *During convalescence:*—Milk, raw eggs, wine, animal food. Ammonia and bark, 371. Quinine and steel, 380. Cod liver oil.

Chronic pneumonia:—Iodide of potassium and bark, 31. Iodide of iron, 32. Hydrochlorate of ammonia. Cod liver oil. Nourishing food. Turpentine stupes. Iodine liniment.

Remedies sometimes employed:—Tartarated antimony. Calomel. Veratrum viride. Blood-letting. Leeches. Blisters. Antiphlogistic regimen.

PNEUMOTHORAX.—From Πνεῦμα, air; θώραξ, the chest. Synon. *Pneumatothorax; Emphysema Pectoris; Aërothorax.*—A collection of air in the pleura. When, as generally happens, there is liquid with the air, the disease is called *Pneumothorax with Effusion.*—May arise from injury by jagged ends of a broken rib: from an external penetrating wound: from ulceration owing to extension of a tubercular cavity.—Physical signs:—Great resonance on percussion; with indistinctness of respiratory murmur on auscultation. Amphoric resonance. Metallic tinkling, on practising succussion, in pneumothorax with effusion.—In some rare instances, the dyspnœa has been so urgent that the air has had to be evacuated by puncturing pleural cavity with a grooved needle.

POISONS.—Consist of any matters which, when absorbed into the blood, are capable of destroying life. "Deadly poisons" are such substances as rapidly prove fatal in small doses. The term "destructive thing" is applied to any mechanical irritant,—such as pins, needles, particles of iron or glass, sponge &c.

Poisons are arranged according to their action into three classes,—*Irritants, Narcotics,* and *Narcotico-Irritants.* Another division is into Irritants and Neurotics; the latter consisting of Narcotics or Cerebral poisons, and Narcotico-Irritants or Spinal and Cerebro-spinal poisons (Taylor).—See *Poisons,* in Tabular Synopsis.

Symptoms. *Irritants:*—Give rise to pain in stomach and bowels, sickness, purging with tenesmus. Evacuations often tinged with blood: pulse feeble and irregular: skin cold. Many irritants corrode the tissues with which they come in contact; hence they produce severe burning sensations in mouth, œsophagus, and stomach. The degree of chemical action produced will vary in proportion to

amount of water with which noxious agent has been diluted. They cause death by inducing collapse, or convulsions; or by exciting severe inflammation; or, after a variable interval, by leading to stricture of œsophagus. Diseases which most resemble action of irritants are,—Malignant cholera, severe diarrhœa, colic, gastritis, enteritis, rupture of stomach or intestines, trichiniasis, and obstruction of bowels.

Narcotics:—Act on brain and spinal cord, inducing headache, drowsiness, giddiness, stupor, and insensibility. Frequently there are convulsions; sometimes paralysis. Very seldom vomiting or diarrhœa. The symptoms of apoplexy, epilepsy, and uræmia, bear a resemblance to those caused by poisons of this class. With regard to one intensely powerful agent (nitro-benzole) the symptoms may not come on for a few hours, unless several drops have been taken. In the latter case, there is rapid coma and death.

Narcotico-Irritants:—Produce great thirst, pain in throat and stomach, vomiting and purging, delirium with spectral illusions, and rarely convulsions. Sometimes tetanus, sometimes coma or syncope. Diseases of brain and spinal cord often very insidious in their progress: hence they give rise to symptoms which may be improperly attributed to poisoning. The history, mode of attack &c. should serve to prevent error.

Treatment. The object of practitioner may be comprised under three heads:—(1) *To promote discharge of poison from system.* When the poison has been introduced into stomach, recourse to be had to stomach-pump or to emetics. The *stomach-pump* is the best instrument for emptying the stomach, washing it out, and administering the antidote. Its employment not advisable in poisoning by corrosives, as it might cause laceration of tissues, or even perforation of œsophagus or stomach. When used, less fluid should be withdrawn than is pumped into stomach. If stomach-pump cannot be employed, *emetics* must be trusted to, unless the poison has itself produced sufficient vomiting. Sulphate of zinc, rapid in action and but slightly depressing in its effects, 232. Mustard useful, 232. In poisoning by opium and other narcotics, when other emetics fail, sulphate of copper often acts well, 232. Ipecacuanha useful, especially for children, 231. A warm and stimulating emetic can be made with ipecacuanha and ammonia, 233. Vomiting may also be excited by tickling the fauces: by free administration of hot water, or of hot greasy water.

When poison has been administered by rectum, or when it is thought to have passed from stomach into bowels, *enemata* are necessary. Salt and water, oil and barley water, soap and water, 188. Castor oil and turpentine, 190. Croton oil, 191.

When poison has been applied through wound in skin, absorption to be prevented. Ligature between trunk and wounded part, as near latter as possible. Removal of deleterious substance by suction; use of cupping glasses. Stream of cold water, long-continued.

(2) *To counteract operation of poison by antidotes.* No universal antidote known: hence treatment varies with nature of substance taken. An antidote should possess these properties:—It ought to allow of being given in large doses without danger; it should act

upon the poison, whether liquid or solid, at a temperature equal to or below that of body; its action should be quick; it should be capable of combining with the poison, though shielded by gastric juice, mucus, bile, or other substances contained in stomach; and it should deprive the poison of its deleterious properties (Orfila). Antidotes operate by forming harmless chemical combinations, or by producing insoluble compounds: they thus destroy the poison, or prevent its absorption. Purified animal charcoal has been recommended. It seems to have the power of combining in the stomach with poisonous principles of animal and vegetable substances, so as to produce innoxious substances: when given in large quantities it will absorb some mineral substances (especially arsenic) and render them inert: about half an ounce of charcoal is required to each grain of morphia, strychnia, or any other alkaloid; but much less for the drugs from which they are obtained, a scruple of nux vomica, for example, not requiring more than half an ounce of charcoal: and, lastly, this antidote has no injurious action on the body (Garrod).

In poisoning by *Mineral Acids*, the remedies are:—Carbonate of soda, calcined magnesia, or carbonate of magnesia, freely in milk or any mucilaginous fluid. In absence of these, whiting, soap and water, plaster of the walls. Olive oil, linseed tea, gruel, milk, barley water. If breathing be impeded by injury to larynx, tracheotomy. Subsequently, remedies against gastritis. External parts when injured, to be bathed with soap and water, olive oil, lime liniment.

Vegetable Acids:—Stomach-pump or emetics. Draughts containing magnesia, chalk, or whiting: mucilaginous or demulcent drinks. Alkalies (soda, potash, or their carbonates) form salts with oxalic acid, which are as injurious as the acid itself.

Phosphorus:—Vomiting to be encouraged by large draughts of mucilaginous or albuminous drinks. Full doses of magnesia. Oil to be avoided, as it is a solvent of this substance.

Iodine:—Vomiting to be encouraged. Free administration of amylaceous fluids, as gruel, arrowroot, starch. Latter to be continued as long as blue iodide of starch is vomited.

Ammonia, Potash, Soda, and their Carbonates:—Vinegar and water to neutralize poison. Acidulated barley water, orange juice. The use of oil has been recommended, with object of converting the alkali into a soap.

Nitrate, Sulphate, and Acid Tartrate of Potash:—No antidotes known. Vomiting to be produced. Demulcent drinks.

Baryta and its Salts:—Sulphate of soda, or sulphate of magnesia, or some earthy sulphate, so as to convert the poison into an inert and insoluble sulphate of baryta. Emetics or stomach-pump.

Arsenic:—Stomach-pump. Emetics. Vomiting to be kept up by albuminous or mucilaginous diluents. Raw eggs in milk. Eggs, milk, and lime water. Equal parts of oil and lime water. Castor oil (fl. oz. ij) to carry off any portion which has passed into intestines. Animal charcoal. Calcined magnesia. Hydrated sesquioxide of iron has been undeservedly praised: if given, large doses necessary (a tablespoonful, frequently repeated). Subsequent depression of nervous power

to be combated by stimulants and opium. For any inflammatory action, opium or conium or henbane.

Corrosive Sublimate:—Vomiting to be encouraged. Best antidotes, albumen and gluten of wheat:—White and yolk of several raw eggs; flour, made into a paste with milk or water. Subsequently, demulcent drinks and milk and Wenham Lake ice. Gargles of alum and myrrh, 252; tannin, 251; borax, 250; chlorinated soda, 254. Opiates. Chlorate of potash, 61. Iodide of potassium, 31.

Salts of Lead:—Soluble alkaline or earthy sulphates, as the sulphates of soda or magnesia. Milk, or milk and raw eggs. Emetics, or stomach-pump. Croton oil enema, 191. In *chronic lead poisoning:*—Croton oil, 168. Castor oil and opium, 164. Sulphate of magnesia with sulphuric acid, 142. Enemata of hot water. Hot sulphur baths, 125. Opium, 316, 317, 339 &c. Iodide of potassium, 31.

Salts of Copper:—Vomiting to be encouraged by warm water. Albumen, the only effectual antidote. Hence several raw eggs are to be given, followed by milk or mucilaginous drinks.

Tartarated Antimony (Tartar Emetic):—Vomiting to be encouraged by milk; warm greasy water. As tannate of antimony is inert, tea to be given; decoction of oak bark; gallic or tannic acid. Tincture of galls. Cinchona bark in tincture or powder.

Chloride of Antimony (Butter of Antimony):—Magnesia in milk. Tea; decoction of oak bark; gallic acid.

Sulphate of Zinc:—Vomiting to be encouraged by milk or albuminous fluids. Remedies containing tannin, as for antimony.

Chloride of Zinc:—Emetics and albuminous drinks, followed by preparations of tannin.

Nitrate of Silver:—Common salt. Emetics, if vomiting be absent.

Bismuth:—No antidote known. Vomiting to be promoted. Emollient drinks.

Chrome:—Emetics. Magnesia or chalk.

Sulphate of Iron (Green Vitriol):—Magnesia and diluents.

Vegetable and Animal Irritants:—Vomiting to be excited or encouraged. Purgatives. Linseed tea, gum water, gruel. Warm baths. Opiates. Emollient enemata. In poisoning by cantharides, oil to be avoided; as it is a solvent of the active principle (cantharidine).

Irritant Gases:—Removal of patient to pure air. Artificial respiration (see *Suspended Animation*). Cautious inhalation of ammonia, ether, or steam.

Opium: — Stomach-pump. Emetics of sulphate of zinc, 232: sulphate of copper, 232: of a tablespoonful of mustard in water. Where there is inability of swallowing, emetics to be administered as enemata. Patient to be prevented from sleeping by dashing cold water over head and chest; walking him up and down in open air between attendants; electro-magnetic shocks to spine; flagellation to legs with a wet towel; administration of strong coffee. Alcoholic stimulants. Artificial respiration. Belladonna, in from thirty to sixty minim doses of the tincture every hour, as an antidote.

Hydrocyanic Acid (Prussic Acid):—No antidote to be relied on. Chlorine and mixed oxides of iron been recommended: if they were

at hand their efficacy would be doubtful. Animation to be restored by cold affusion; stimulating frictions to chest and abdomen; ammonia to nostrils. Artificial respiration. After recovery from immediate effects, vomiting to be produced. Strong coffee. Brandy.

Nitro-Benzole (Essence of Mirbane, Artificial Oil of Bitter Almonds):—Strong coffee. Brandy. Ammonia. Turpentine enemata. Cold affusion. Galvanism. Artificial respiration.—The same treatment is necessary in poisoning by *Aniline*. No antidotes are known; but it might be advisable to try the effects of animal charcoal, if the case were seen early.

Chloroform and Ether:—Stomach-pump if these poisons have been swallowed. Where symptoms follow inhalation,—Exposure of patient to current of pure air. Cold affusion. Galvanism. Artificial respiration, 313.

Alcohol:—Stomach-pump. Cold affusion. Solution of acetate of ammonia properly diluted. Warmth to be promoted. Sinapisms to extremities and cardiac region.

Henbane, Lettuce-Opium, and Nightshade:—Emetics. Full doses of castor oil.

Narcotic Gases:—See *Suspended Animation*.

Nux Vomica, Strychnia, and Brucia:—Emetics. Stomach-pump. Purgative enemata. Olive oil. Animal charcoal. Warmth and sweating to be induced. Perfect quiet. Chloroform to diminish tetanic spasms.

Belladonna:—Emetics. Castor oil. Animal charcoal.

Aconite:—Emetics. Castor oil. Animal charcoal. Strong coffee. Ammonia or brandy. Limbs to be rubbed with hot towels. Artificial respiration.

Digitalis:—Emetics. Castor oil. Infusions containing tannin, as tea, decoction of oak bark, tincture of galls. Tannic acid in water. Strong coffee or brandy.

(3) *To remedy effects produced and obviate tendency to death.* Frequently too long an interval has elapsed between exhibition of poison, and the time when emetics or antidotes can be of use. If absorption have taken place, the symptoms must be palliated. In poisoning by depressing agents and narcotics, or such as destroy nervous force, lowering agents to be avoided; whilst stimulants and cold affusion and galvanism are resorted to. When breathing and circulation seem about to cease, artificial respiration may preserve life till the poison is eliminated. To promote elimination, the excreting functions are to be excited. Thus, in poisoning by arsenic, the employment of diuretics has been proposed, because it has been found that this poison is eventually carried off in large quantities by the urine.

POLYÆMIA.—From Πολὺς, much; αἷμα, blood.—Abundance of blood.—See *Hyperæmia*.

POLYDIPSIA.—From Πολὺς, much; διψὴ, thirst. Synon. *Sitis Morbosa; Excessive Thirst.*—A symptom in many diseases,—fever, inflammation, cholera, diabetes mellitus, diuresis &c.

POLYPUS.—From Πολὺς, many; πούς, a foot.—A tumour so-named because it was supposed to have numerous attachments or feet.—See *Nasal Polypus; Otorrhagia* (for polypus of ear); *Uterine Tumours; Rectal Polypus.*

POLYSARCIA.—From Πολὺς, much; σάρξ, flesh. Synon. *Carnositas; Corpulentia; Steatites.* Excessive corpulency.—See *Obesity.*

POLYURIA.—From Πολὺς, much; *urea.* Synon. *Azoturia.*—A condition in which a larger quantity of urine than natural is secreted, containing an absolute and relative increase of urea.—See *Diuresis.*

PRESBYOPIA.—From Πρέσβυς, an old man; ὤψ, the eye. Synon. *Presbytia; Visus Senilis; Long-sight.*—An alteration in the refractive powers of the eyes, producing presbyopia, or long-sightedness, is one of the earliest indications of the commencement of old age. Seldom begins before the forty-fifth year.

Symptoms. The range of accommodation is diminished; vision is imperfect for near objects; distant ones are seen clearly. Often accompanied by weakness of sight (amblyopia). Rapid increase of presbyopia is a precursor of glaucoma.

Treatment. Convex glasses directly vision fails for ordinary work: to be so worn that they can be seen over at pleasure for distant objects. If there be anæmia, quinine and ferruginous tonics. Cold water douche to eyes.

PRIAPISM.—Priapismus, from Πρίαπος, the virile member; terminal *-ισμὸς*. Synon. *Tentigo Penis; Horn Colic.*—Constant and distressing erection of penis. May arise from:—(1) Injury or disease of spine, as fracture of lower dorsal or upper lumbar vertebræ. Disease of brain. (2) The rupture of some vessel, with extravasation of blood into corpora cavernosa. (3) Subacute inflammation, with effusion of lymph into corpora cavernosa. (4) Vesicular and nervous excitement, owing to excessive venery.

Priapism may sometimes be relieved by:—Bromide of potassium, 42. Iodide of potassium, 31. Henbane, camphor, and hop, 325. Camphor and belladonna, 326. Belladonna suppositories, with opium if there be pain, 340. Iodoform suppositories, 338. Aconite or belladonna lotions, 265. Cold lotions, 273. Arnica lotions, 275.

PROCTALGIA.—From Πρωκτὸς, the rump or anus; ἄλγος, pain. Synon. *Proctagra; Proctodynia; Dolor Ani.* Pain about the anus: due to neuralgia, or to organic disease.—See *Rectal Neuralgia.*

PROCTITIS.—From Πρωκτὸς, the rump or anus; terminal *-itis.* Inflammation of the rectum and anus.—See *Rectitis.*

PROPTOSIS OCULI.—From Προπίπτω, to fall forward: *Oculus,* the eye. A protrusion of the eyeball, so that the lids cannot cover it. Met with in peculiar forms of anæmia.—See *Graves' Disease.*

PROSTATIC ENLARGEMENT. — Hypertrophy may result from chronic prostatitis, or in advanced life independent of any inflammatory action. Produces displacement or compression of urethra, so that micturition is rendered slow and difficult. The whole gland may enlarge equally, or only the central portion. In hypertrophy due to inflammation, a cure may sometimes be effected by a course of mercury. In senile form, only palliatives are useful:—Acids, buchu, steel, opiates, aperients, careful diet, avoidance of cold &c. Care must be taken that the bladder is completely emptied, or chronic cystitis will be set up. Partial or complete retention of urine requires the employment of a long catheter with a large curve.

Very rarely the prostate becomes the seat of *cancer*,—especially the medullary form.

PROSTATITIS.—From *Prostata*, the prostate gland—*Prosto*, to stand in front, this gland being anterior to the bladder; terminal *-itis*. Synon. *Inflammatio Prostatæ*.—Inflammation of the prostate may occur in course of gonorrhœa, from violence, use of strong injections to urethra, exposure to wet in unhealthy constitutions, excessive venery, diseases of rectum, and irritation of cantharides.

Symptoms. Pain and tenderness about perineum, with sense of heat. Frequent painful micturition. Pain during defecation. Feeling of weight about perineum and rectum. Great suffering if a catheter be passed. Aggravation of suffering, rigors, fever, difficulty of micturition &c. when the morbid action progresses to abscess.

Treatment. Perfect rest in bed. Hot hip baths. Fomentations. Poultices. Free use of belladonna to perineum. Opiate suppositories or enemata, 339, 340. Simple nourishment, without stimulants. Colchicum, 46. Iodide of potassium, 31. Bromide of potassium, 42. Hydrochlorate of ammonia, 60. Opium, 324, 339, 340, 345. Aconite, 330, 331. Belladonna, 326, 344.

In abscess:—Incision through perineum directly there is fluctuation. Ammonia and bark. Nourishing food; raw eggs, cream, essence of beef &c. Wine, if there be much depression.

PRURIGO.—From *Prurio*, to itch; terminal *-igo*.—A chronic non-contagious cutaneous disease, characterised by an eruption of small papulæ or pimples. Causes intense discomfort. The term *Prurigo* should not be used as the synonym of *Pruritus* or *Itching*.

Varieties. *Prurigo mitis*, the mildest form.—*Prurigo formicans*, the itching being combined with a sensation like the creeping of ants or stinging of insects.—*Prurigo senilis*, which occurs in old age, and may last for the remainder of patient's life.—Irritation from prurigo not to be confounded with that caused by lice. These insects often present in old age, where there is a want of cleanliness.

Treatment. *Internally:*—Aloes, gentian, and potash, 148. Sulphate of soda and sulphur, 148. Sulphur and magnesia, 153. Rhubarb and magnesia, 165. Pepsine and aloes, 155. Sarsaparilla and iodide of iron, 32. Tar capsules, 36. Arsenic, 52. Steel and arsenic, 399. Bark and mineral acids, 376. Nitro-hydrochloric acid, 378. Quinine, 379. Nourishing food, avoiding stimulants. Acidulous drinks.

Locally :—Alkaline baths, 121. Sulphur baths, 125. Conium baths, 122. Creasote baths, 123. Applications of vinegar, lime water, tobacco water, solution of corrosive sublimate, solution of creasote, solution of hydrochlorate of ammonia, lotions with prussic acid and glycerine. Ointments of aconitine, tar, nitrate of mercury, sulphur &c. Sponging with apple vinegar, and then smearing with diluted nitrate of mercury ointment.

PRURITUS ANI.—From *Prurio*, to itch : *Anus*, the fundament.—A very troublesome itching of anus not uncommon in cases of hæmorrhoids, dyspepsia, intestinal worms. Old people often complain of it; as do women towards the end of pregnancy, and such as have uterine disease, or such as have recently got over the change of life.

Symptoms. Severe itching of fundament: increased by heat, rich living &c. Often prevents sleep. The friction resorted to causes the surrounding tissues to become thickened and furrowed. Care necessary lest irritation be due to pediculi.

Treatment. *Internally :*—Electuary of senna and taraxacum, 194. Confection of pepper, or sulphur. Rhubarb and blue pill, 171. Simple enemata, 188. Arsenic with bitter infusions, 52. Iodide of iron and sarsaparilla, 132. Tar pills or capsules, 36.

Locally :—Tobacco water, 265. Corrosive sublimate and prussic acid lotion, 263. Borax, morphia, and glycerine, 268. Lint dipped in tincture of opium. Lemon juice. Vinegar. Olive oil. Calomel and belladonna ointment, 299. Diluted citrine ointment, 305. Fuller's earth (chiefly a compound of silica, alumina, oxide of iron, and magnesia). Glycerine. Nitrate of silver. Leeches.

General remedies :—Cold bathing or sponging. Daily exercise in open air. A diet free from alcohol, coffee, and seasoned dishes. Cool bed-room : to sleep on a hard mattress, without too heavy clothing.

PSORIASIS. — From Ψώρα, tetter. Synon. *Psora Leprosa; Diffused Dry Tetter; Lepra Diffusa.*—A variety of lepra, the eruption being diffused over the whole body.—See *Lepra.*

PTOSIS.—From Πτόω, to fall. Synon. *Ptosis Palpebræ; Blepharoptosis; Prolapsus Palpebræ.*—An inability to lift the upper eyelid from palsy of the third nerve. May be due to cerebral disease, to congestion of brain, to simple debility. When there is organic disease it may be accompanied by amaurosis.

PUERPERAL MANIA. — From *Puerpera* (*Puer* and *pario*) a woman in childbed : Μαίνομαι, to rage.—A peculiar form of insanity occurring to women soon after delivery.

Symptoms. Commence with restlessness, insomnia, severe pain in head, diminution of secretion of milk. Sometimes, skin hot and dry : pulse full and quick : tongue thickly furred. Often, great debility : perhaps prostration from flooding, lingering labour, or some morbid poison in system. Delirium frequently violent. Great general irritability. Tendency to suicide, or child-murder.

Treatment. Indications are, first to rouse and support powers of patient: second, to allay irritability of brain and nervous system. (1) Brandy and egg mixture, 17. Ammonia and bark, 371. Quinine and phosphoric acid, 379. Cod liver oil, 389. Pounded beef in broth. Wine. Beer. Milk. (2) Extract of stramonium, 323. Extract of opium, 343. Morphia and Indian hemp, 317. Subcutaneous injections of morphia, 314. Chloroform inhalation, 313.—Patient to be controlled by a trained nurse. Separation from family and friends, unless symptoms quickly yield to remedies.

PULMONARY APOPLEXY.—From *Pulmo*, the lungs.—The effusion of blood into the air-cells of the lungs, and its coagulation there. It may be *circumscribed*, the effusion varying in size from a pea to an orange; or it may be *diffused* through the broken down pulmonary tissues. Arises from disease of heart, lung tissue, bloodvessels, or anæmia.

PULMONARY CANCER.—Most commonly of encephaloid character. May occur as a primary or secondary infiltration, or as a primary or secondary nodular deposit. Generally associated with mediastinal cancer.—See *Intra-Thoracic Tumours.*

Symptoms. When occurring *primarily*:—Flattening of affected side, impairment of respiratory movements, dulness on percussion. Pain, emaciation, night-sweats, dyspnœa, failure of powers of life, purulent expectoration &c. Right lung most frequently affected. Often, chronic bronchitis as a complication.

In *secondary* cancer, symptoms very obscure. Frequently, dyspnœa the chief indication of pulmonary mischief. Both lungs usually affected.

Primary cancer of *pleura* very rare. Usually the disease is associated with cancer of lung, pericardium, mediastinum &c. Deposit found as small spots, or hard layers, or in form of tumours which sometimes become pediculated. May be attended with effusion of serum, or pus, or blood. Symptoms sometimes simulate those of phthisis.

Treatment. Attempts must be made to relieve symptoms as they arise. Strength to be supported by nourishing food; cod liver oil; stimulants. If there be much suffering, morphia with chloroform and Indian hemp, 317. Opiate enemata, 339. Opiate suppositories, 340. Subcutaneous injections of morphia, 314.

PULMONARY CONDENSATION.—Consolidation of the vesicular tissue of the lung may arise from several causes. Thus, it may result from pneumonia, phthisis, cancerous deposit. From pressure exerted on lung, by fluid poured out in pleurisy; by extravasated blood, as in pulmonary apoplexy; by enlarged bronchial lymphatic glands, which are arranged along sides of air-tubes; by aneurismal or other intra-thoracic tumours. A small tube, or even a main bronchus, may thus become so obstructed that air cannot pass; and as a consequence there results collapse of that portion of lung to which the compressed bronchus leads.

In *cirrhosis* of the lung, the vesicular structure contains no air,

and is infiltrated by a tough fibrous and greyish material. Perhaps there may be numerous small cavities filled with yellowish viscid mucus; the cavities consisting of dilated bronchial tubes. If entire lung be affected there will be dulness on percussion; expansion movement scarcely perceptible; no vesicular murmur; but perhaps loud gurgling rhonchi on forced inspiration.

Another important form of pulmonary condensation is due to collapse of the air-cells from the plugging up of a bronchial tube. This condition sometimes described as *disseminated lobular pneumonia, marginal pneumonia, carnification*, or *pulmonary collapse*. It may be acquired or congenital:—

In *acquired pulmonary collapse*, the margin of lung, or an irregular portion of one lobe, or an entire lobe, or the whole of the organ may be involved. Obstruction owing to increase in secretion of mucous lining of tubes, with inability to cough it up. Hence, not uncommon during course of bronchitis or hooping-cough in feeble subjects. Or, secretion natural in quantity, but unduly viscid; while from debility or old age it is expelled so imperfectly that an accumulation takes place in central or some other part of lung, and acts like a plug. Physical signs,—dulness on percussion, with an absence of respiratory murmur over affected parts: unless morbid condition has been of some duration, when these signs may be masked by occurrence of a kind of compensating emphysematous distension of those portions of lung anterior to obstruction.—Stimulants, tonics, and restorative food are the only remedies of any value.

Congenital non-expansion of air-cells met with in weakly infants. Known as *Atelectasis*, from Ἀτελής, imperfect; ἔκτασις, expansion.—An infant so affected looks as if about to die. Often jaundiced: cry consists of a weak whimper: inability to suck: drowsiness and exhaustion: surface cold and slightly livid: chest but partially dilated by imperfect respiratory movements. The solidity will perhaps lessen as strength is gained, and good health be ultimately attained: or death may occur from exhaustion, with convulsions. To obviate latter, child to be wrapped in cotton wool, and kept in warm room; hot bath once or twice in twenty-four hours; friction of chest with cod liver oil and soap liniment; administration of milk, port wine, a few drops of tincture of bark, and solution of raw beef every two hours.

PULMONARY GANGRENE.—Gangrene of the lung is an occasional termination of pneumonia in enfeebled constitutions, with a depraved state of blood. Very rarely occurs independently of pneumonia, from some impediment to pulmonary circulation. May be met with in children as an accompaniment of cancrum oris. The gangrene may be diffused or circumscribed.

Symptoms. Great and increasing debility. Loss of flesh. Hectic fever. Night-sweats. Weakness and rapidity of pulse. Anxiety of countenance. Cough. Expectoration of frothy greenish-tinted sputa, which have a most offensive odour. Offensive putrid breath. In diffused gangrene, patient soon sinks from exhaustion. In the circumscribed form the symptoms come on more gradually, beginning with

indications of pulmonary congestion. After a time there may be a little improvement; which slowly increases, and patient recovers.—In both forms, the *physical signs* are those of pulmonary condensation; with, subsequently, those caused by destruction of tissue and the formation of a cavity.

Treatment. Ammonia and bark, 371. Bark and nitro-hydrochloric acid. Tincture of perchloride of iron. Quinine with a mineral acid, 379. Solution of chlorinated soda, 76. Opium. Compound tincture of benzoin. Sulphite of magnesia, 48. Chlorate of potash. Inhalation of turpentine vapour, 260. Inhalation of atomised solutions of turpentine, steel, iodine, or sulphate of zinc, 262. Inhalation of diluted oxygen gas. Cod liver oil. Animal food. Good soups. Milk, cream, and raw eggs. Stout, or ale. Port wine, or brandy.

PURPURA.—From Πορφύρα, a purple dye. Synon. *Malignant Petechial Fever; Hæmorrhœa Petechialis.*—A morbid condition of the blood and capillary vessels; leading to disintegration of the red corpuscles, with diffusion of their contents.

Symptoms. Languor and debility. Sallow or dusky complexion. Epistaxis. Pains about epigastrium. Craving for food. Palpitation. Giddiness. Constipation. Sanguineous effusions into different tissues. Small hæmorrhagic spots or petechiæ. Large patches,—vibices or ecchymoses. Enlargement and softening of the spleen.

Treatment. Animal food. Fresh fruit or vegetables. Milk. Wine or beer. Aloes. Senna. Castor oil. Bark and mineral acids, 376. Nitro-hydrochloric acid, 378. Quinine, 379. Arsenic, 381. Iron, 397, 399. Vinegar. Nitrate of potash? Oil of turpentine, 50. Gallic acid, 103. Citric acid. Lemon juice.

PYÆMIA OR PYOHÆMIA.—From Πύον, pus; αἷμα, blood.—Blood-poisoning, owing to absorption of ichorous or putrid matters.—See *Ichorhæmia.*

PYELITIS.—From Πύελος, a trough; terminal *-itis.*—Inflammation of mucous membrane lining pelvis and infundibula of kidney.—See *Nephritis.*

PYREXIA.—From Πῦρ, fire; ἔχω, to hold.—The febrile state, or an attack of fever.—See *Fevers.*

PYROSIS.—From Πυρόω, to set on fire. Synon. *Ardor Stomachi; Water-brash.*—A form of indigestion in which there is frequent eructation of a thin, watery, and acid or tasteless fluid. More common in women than men. Not infrequent in advanced life. Often exists in connexion with some derangement of nervous or uterine system; or with organic disease of stomach, pancreas, or liver.

Symptoms. Pain at pit of stomach, followed by eructation of watery and insipid or acid fluid. Sometimes nausea and vomiting; heartburn. Often associated with other symptoms of indigestion.

TREATMENT. White bismuth. Solution of ammonio-citrate of bismuth (Schacht's). Bismuth lozenges (officinal). Bismuth, with magnesia or soda, 65, 112. Saccharated solution of lime and milk, 14. Solution of potash and lime water, 73. Ammonia in effervescence, with hydrocyanic acid, 362. Carbonate of magnesia. Opium. Henbane. Hop. Kino. Powder of kino and opium. Compound powder of rhubarb. Aromatic sulphuric acid. Nux vomica. Alum. Nitrate of silver. Oxide of silver. Oxalate of cerium. Compound tincture of benzoin. Gallic acid. Tannin lozenges (officinal). Iron alum.

For diet &c. see *Dyspepsia.*

PYTHOGENIC FEVER.—Looking to the origin of the typhoid poison, the appellation of *Pythogenic fever* has been suggested,—*πύθογενης*, from *πύθων* (*πύθομαι*, to putrefy), and *γεννάω*, to engender. Literally, "born of putridity." (Murchison). Synon. *Enteric* or *Typhoid Fever.*—See *Typhoid Fever.*

RABIES.—From *Rabio*, to rave. Synon. *Morbus Hydrophobus; Rabies Canina; Water-Fright.* Canine madness.—See *Hydrophobia.*

RACHITIS.—From *Ῥάχις*, the spine; terminal *-itis;* so named because of the opinion that the spinal cord is in fault. Synon. *Rhachitis; Osteomalacia Infantum; Innutritio Ossium.*—See *Rickets.*

RECTAL CANCER. — May be of scirrhous, medullary, or colloid form. Epithelial cancer sometimes attacks anus, and may extend some distance up the rectum.

SYMPTOMS. Not well-marked at first: but little suffering until difficulty in defecation arises. When practitioner is consulted, coats of bowel generally found extensively infiltrated with cancer, producing considerable contraction. Severe lancinating pains. Frequent attacks of hæmorrhage. Offensive muco-purulent discharges. Debility, ending in complete prostration. Loss of flesh. Cancerous cachexia &c. Ulceration into bladder or urethra in men: frequently, into vagina in women. Death from exhaustion.

TREATMENT. Opium, 343. Opium and belladonna, 344. Opiate suppositories, 340. Subcutaneous injections of morphia or atropine, 314. Morphia, chloroform, and Indian hemp, 317. Iodoform pills or suppositories, 338. Nourishing food: milk, cream, raw eggs. Brandy: wine. Formation of artificial anus in left loin: so as to prolong life for a few months, and render it more endurable. In epithelial cancer,—excision, cutting wide of affected tissue, and immediately afterwards touching all parts of raw surface with chloride of zinc.—See *Cancer.*

RECTAL NEURALGIA. — Synon. *Proctalgia.* — May persist for many weeks, without altogether subsiding for a day. Pain aggravated by passage of stools. Tenesmus. Pain may be confined to a single spot.—To be cured by nourishing food. Pepsine, 420. Simple enemata, 188. Suppositories of opium and belladonna, 340. Quinine. Zinc. Steel. Cod liver oil.—See *Neuralgia.*

An *irritable sphincter muscle* causes pain in defecation. On introducing finger, the muscle grips it very tightly. Mild laxatives. Bougies. Belladonna ointment. Improvement of general health.

RECTAL POLYPUS.—From Πολὺς, numerous; πούς, the foot,—because these tumours were supposed to be attached by many roots.—More common in children than adults. The pedunculated growth arises from the mucous membrane; and it may be soft or follicular, or firm and fibrous.—A *villous tumour*, resembling that sometimes found in urinary bladder, occasionally grows with a broad base from mucous membrane of rectum.

Symptoms. Uneasiness about fundament. Frequent desire to go to stool. Mucous discharges tinged with blood. In villous growths, perhaps abundant hæmorrhage. A polypoid tumour usually descends whenever the bowels act.

Treatment. Application of a ligature, and immediate removal of tumour below it with scissors. If there be no fear of bleeding, excision only.

RECTAL PROLAPSUS.—From *Prolabor*, to glide forward. Synon. *Prolapsus Ani; Proctocele; Ectopia Ani; Falling of the Fundament.*—There may be protrusion only of mucous lining of rectum, or all the coats of the bowel will be found prolapsed. Caused by want of tone in sphincter ani, constipation, straining at stool, prolonged diarrhœa, irritation of worms, disease of urinary organs, stone in bladder &c.

Symptoms. At first, protrusion only occurs when bowels act. After a time, descent follows any exertion, as standing, coughing &c. Only a fold of mucous membrane comes down, or inverted bowel is forced out to extent of five or six inches. When prolapsus is almost constant, intestinal mucous membrane becomes indurated, perhaps ulcerated: sphincter ani found much relaxed. Discharge of mucus tinged with blood. A general sense of weight and distress about the body, with severe pain on going to stool.

Treatment. Replacement usually effected without difficulty. Sometimes, especially in children, bowel descends immediately after reduction: to be prevented by applying a pad of lint, and drawing buttocks firmly together with a broad strip of adhesive plaster. Advantageous to make children pass their motions in a recumbent posture, so as to prevent violent straining. General health to be improved: bark, quinine, glycerine, steel, cod liver oil. Constipation to be prevented: taraxacum, carbonate of magnesia, cream of tartar, or mercury and chalk. After each evacuation, bowel to be replaced: anus to be sponged with cold water. Astringent enemata of alum and decoction of oak-bark; or of tincture of perchloride of iron and water; or of infusions of matico or rhatany. Suppositories of tannic acid and cocoa butter.

Medical treatment failing:—Rectal supporters worn for some time. Production of superficial sloughs by application to mucous membrane of nitrate of silver, nitric acid, solution of perchloride of iron, potassa

fusa, or actual cautery. Acid solution of nitrate of mercury objectionable: it may cause salivation. Excision of two or three folds of mucous membrane and skin at margin of anus. Several small folds of mucous membrane, at different parts of prolapsed bowel, to be taken up with forceps and then tightly ligatured: ligatures to be cut off short, intestine returned, a dose of opium administered, and patient to be kept in bed until ligatures come away.

RECTAL STRICTURE.—Synon. *Rectostenosis; Proctostenosis; Strictura Ani.*—Stricture of rectum may be limited to a ring of condensed tissue,—the annular form; or it may be confined to one side of bowel, as when it follows cicatrization of ulcers; or almost the whole gut may be narrowed and indurated. To be distinguished from constriction due to cancer, or to pressure of tumours; as well as from simple spasmodic contraction produced by irritable ulcer &c.

Symptoms. Constipation; small stools; great difficulty in voiding solid motions. Straining and bearing-down efforts. Flatulence. Pain in loins and sacrum. Mucous discharges, sometimes stained with blood. Depression of general health: low spirits. If ulceration follow, burning pains; tenderness about sacrum and fundament; discharges of blood and pus; considerable constitutional disturbance.

Treatment. Dilatation by bougies: an instrument to be passed occasionally for some months after apparent cure. Sponge tents, 426. Slight notching of annular stricture with probe-pointed bistoury, and plugging with oiled lint; subsequently, use of bougies. Suppositories of opium and belladonna, 340. Aperient electuaries, 194. Simple enemata, especially of olive oil, 188. Nourishing food. Glycerine. Cod liver oil.

RECTAL ULCERS.—(1) *Irritable ulcer of rectum*, or *fissure of anus.* An apparently slight affection, but one which causes great suffering. Ulcer generally superficial; about one-eighth of an inch broad and third of an inch long; seated immediately within anus, and generally towards the coccyx. Most common in women; sometimes produces ovarian pain, irritability of bladder, and great pain during sexual intercourse. Passage of stools irritates the sore; producing spasm of sphincter ani, and acute burning pain which lasts some hours.—To make a thorough examination, chloroform sometimes needed.—To heal the ulcer, constipation to be prevented by mild aperients. Castor oil. Electuary of senna and taraxacum, 194. Dinner pill of pepsine and watery extract of aloes, 155. Cod liver oil. Nourishing food, free from stimulants. Locally,—Mercurial ointment and belladonna, made into a solid stick with cocoa butter, 424. Ointment of nitrate of mercury, 305. Calomel and belladonna ointment, 299. Nitrate of silver to be avoided. A longitudinal incision through centre of ulcer and superficial fibres of sphincter ani: one or two grains of opium immediately afterwards, so as to confine the bowels for two or three days. If an external pile be present near fissure, it should be snipped off.

(2) *Chronic ulceration, with thickening of coats of rectum.* May

arise as one of secondary effects of syphilis. May also be due to deposit of tubercle; to cancer; or only to a depressed state of general health. Cause to be removed. Opiate and belladonna suppositories, 340. Subsequent contraction to be prevented by bougies.

(3) *Rodent ulcer.* This intractable disease is met with at margin of anus, the sore gradually creeping up rectum. Requires,—Complete excision. Destruction with potential caustics,—chloride of zinc, 197. Steel with arsenic, 381, 399. Cod liver oil. Sulphate of zinc ointment, 294. Subcutaneous injections of atropine, or morphia, 314.

RECTITIS.—From *Rectus*, straight; terminal *-itis*,—because this portion of the gut was supposed to be straight. Synon. *Proctitis; Architis.*—Inflammation of the rectum and anus. A rare disease, now that drastic purgatives and alcoholic drinks are less abused than formerly. May be produced by external violence, or introduction of some foreign body into gut.

Symptoms. Sense of intense heat around anus. Severe pain shooting up sacrum and back. Spasmodic contraction and excessive sensitiveness of sphincter ani. Tenesmus, with passage of dark-coloured gelatinous mucus. Irritability of bladder. Constitutional disturbance.

Treatment. Rest in bed. Milk and farinaceous diet. Sedative enemata, 339. Opiate suppositories, 340. Ipecacuanha. Saline draughts, 348. Hot hip baths. Linseed poultices.

REFLEX PARALYSIS.—From *Reflecto*, to turn back. That form of palsy in which the irritation is reflected from periphery to centre. Diseases of uterus, urinary organs, and intestines common causes of this form. To be remedied by cure of cause, provided irritation has not existed long enough to induce organic disease in spinal cord.—See *Paralysis.*

RELAPSING OR FAMINE FEVER.—The name of *relapsing* or *recurrent fever* has been bestowed upon this infectious disease, because at a certain period of the convalescence there is a relapse of all symptoms. Epidemics of it have been recognised, during seasons of famine and destitution, since 1739; and have been described under various names,—*Five-day fever, Seven-day fever, Bilious remittent fever, Mild yellow fever, Synocha,* and *Irish famine fever.*

Symptoms. There may be a latent period of 3 or 4 days, or not.—Rigors, frontal headache, muscular pains; followed by fever, rapid pulse, thirst, pain at epigastrium, and vomiting. Sometimes great desire for food. True petechiæ and purpuric spots perhaps appear, but no characteristic eruption. Prostration. On 5th or 7th day great amendment. Patient progresses steadily towards convalescence; when about 14th day from commencement of symptoms, there is a relapse. On 3rd or 4th day afterwards, there is again improvement, and gradual restoration.—Seldom fatal: mortality about 1 in 40.

Treatment. Gentle aperients. Refrigerating drinks. Farinaceous diet. Perfect repose. Quinine. Opium. Wine. Tea and coffee.

Sponging body with tepid water, or vinegar and water, 138. If there be jaundice, nitro-hydrochloric acid, 378. Nitrate of potash. Dry cupping to nape of neck. No remedy prevents the relapse.

REMITTENT FEVER.—From *Remitto*, to abate. Synon. *Febris Remittens.*—The cause of this disease being the same as that of ague, it might be described as *miasmatic* or *paludal remittent fever.*

Remittent fever varies much in severity according to nature of climate in which the poison is generated. Autumnal remittents of England and France, comparatively mild: endemic remittents of tropical climates often very severe and fatal. The locality where the fever prevails seems often to impress some peculiarity upon it, especially as regards the nature of the complications which arise: hence remittent fever has been described under the names of *Walcheren fever, Mediterranean fever, Jungle* or *Hill fever* of East Indies, *Bengal fever, Bilious remittent* of West Indies, *Sierra Leone fever, African fever*, &c.

Symptoms. The symptoms bear a resemblance to those of intermittent fever, except that there is no cessation of the fever, but simply an abatement or diminution. Length of remission varies from 6 to 12 hours; at the end of which time the feverish excitement increases, the exacerbation being often preceded by chilliness and rigors.

Remissions usually occur in the morning: the principal exacerbation is generally towards the evening. The disease may run on for some 14 or 15 days, and end in an attack of sweating; or it may merge into low fever. In England, in 1861, the deaths from it were 254; and as 99 of these were in children under 5 years age, it is probable that the first number indicates a larger mortality than really existed. Infantile remittent is a form of typhoid fever.

Treatment. Principles to be followed, the same as in ague. Attempts to be made to shorten the exacerbation, and to lengthen the remission.—Saline and effervescing draughts, 348, 349, 354. Cold drinks,—water; lemonade; ice; cold tea; cream of tartar, 356, 360. Aperients, 139, 140, 144. Emetics of ipecacuan, if there be nausea without vomiting, 231. Sinapisms to epigastrium, if there be troublesome vomiting. Tepid sponging, 138. Cold affusion, 134. Wet-sheet packing, 136. Simple diet. Avoidance of stimulants.

Directly remission takes place, from 1 to 6 grains of quinine to be given every six hours: omitting it as the hot stage sets in. At next remission, to be commenced again.

Salicin. Sulphate of beberia. Warburg's tincture. Cold affusion; blisters to nape of neck, if stupor set in. If there be jaundice, turpentine stupes or sinapisms to epigastrium. Nourishing broths; raw eggs; and stimulants when depression follows. Avoidance of mercury and bloodletting at any stage.

RENAL CANCER.—The rarest form of kidney disease: most common during first years of childhood and in old age. Encephaloid

cancer much more frequent than scirrhus. When the disease is primary only one gland is usually attacked: if secondary, the reverse. Cancerous degeneration usually commences in cortical substance, and thence extends to medullary cones as well as to pelvis and ureters.

In primary cancer, the renal tumour frequently attains an enormous size: fills abdominal cavity, so that it has been mistaken for ovarian tumour. In secondary form, kidneys enlarge to smaller extent: often feel nodulated on surface.

Chief symptoms,—Enlargement of affected gland. Hæmaturia; more blood escaping than in cases of calculus. Pain in loins. Sickness. Emaciation. Anasarca: perhaps ascites. Fatal exhaustion.

Medical skill can only relieve the prominent symptoms. If passage of urine be obstructed by blood clots, catheter must be used.

RENAL DEGENERATIONS.—From *Ren*, a kidney: *Degenero*, to degenerate.—Three different varieties of kidney disease included under this head:—Fatty, Amyloid, and Cystic Degeneration.

1. Fatty Degeneration. — Synon. *Granular Degeneration of Kidney; Bright's Disease.*—May be the result of acute desquamative nephritis; of strumous diathesis; bad living, intemperance, constant exposure to wet and cold &c.

Symptoms. Gradually increasing debility; frequent and irritable pulse; striking pallor—perhaps combined with puffiness—of face and skin generally; frequent micturition, patient having to rise once or oftener in night to pass water; dyspepsia, with attacks of obstinate vomiting. A tendency to grave inflammations of serous membranes —pericarditis, peritonitis, meningitis, pleurisy; also to amaurosis, sometimes attacking both eyes, and perhaps due to fatty degeneration of retina. Anasarca of limbs, with dropsy of different cavities; in rare cases (unless there be coexistent heart disease) œdema of lungs, setting in suddenly, and rapidly producing serious dyspnœa. Ultimately, convulsions, due to effects of retained urea upon nervous system; coma, soon ending in death.

Characteristic appearances of urine:—Scanty secretion, highly albuminous, of low specific gravity. In early stages, generally free from sediment; examined by microscope, neither renal epithelium, nor casts of tubes found. After a variable interval, while general characters of urine remain unaltered, there appears a light cloudy sediment; containing small waxy casts, in which are entangled one or more globular or oval cells enclosing numbers of oil-globules. Several cells completely filled with oil, presenting appearance of dark opaque masses. Usually, the casts have adhering to their surface many small oil-globules, which have escaped from ruptured cells; while numerous cells containing oil, together with detached oil-globules, are scattered over field of microscope.

When the urine is of natural colour, highly albuminous, and presents a large number of oily casts and cells, prognosis most unfavourable. These appearances indicate as serious and intractable a malady as tubercular disease of lung (George Johnson).

Treatment. Palliation of symptoms. Regulation of diet: abstinence from intoxicating drinks, starch, sugar. Sea air. Occasional purgatives,—Compound jalap powder; elaterium &c. Bark, or quinine. Mineral acids. Ferruginous tonics. Opium may be needed if there be great irritability and restlessness: it must be prescribed with great caution. Hot water or vapour baths. Puncture of anasarcous extremities.—See *Nephritis; Uræmia; Fatty Degeneration.*

2. Amyloid Degeneration.—Synon. *Waxy,* or *Amyloid form of Bright's Disease.*—Waxy, lardaceous, or amyloid degeneration of kidney probably never exists alone. It renders kidney inefficient as an excreting organ, and ultimately useless. Has often some connexion with scrofula, syphilis, or disease of bones.

Symptoms. Loss of strength, coming on gradually. Lassitude. Thirst. Excessive secretion of urine: patient has to rise two or three times during night to micturate. Œdema of feet and ankles. Enlargement of liver and spleen. Urine albuminous, of low specific gravity, pale in colour, of acid reaction: under quarter of an inch object-glass delicate and transparent and waxy or hyaline tube-casts are seen, which are formed by the coagulation of an exudation from bloodvessels into tubules denuded of epithelium. Progress of case slow. Sooner or later, anæmia; diminution in quantity of urine, with increase of albumen. Diarrhœa, if intestinal mucous membrane become affected with waxy degeneration. Ascites, or general dropsy. Death from effusion into pleuræ or pericardium; from bronchitis, or phthisis; from exhaustion; or from convulsions and coma due to uræmic toxæmia.

Treatment. Good may be effected in early stage by sea air: nourishing food: ferruginous tonics. If there be any syphilitic taint, —Iodide of potassium, 31. Iodide of iron, 32, 390. Subsequently, relief of prominent symptoms.—See *Uræmia.*

3. Cystic Degeneration.—Four forms of cystic disease may affect the kidney:—(1) Small scattered cysts, few in number, are often present on surface of kidneys, or in cortical substance, without interfering with functions of these glands. Very rarely such a cyst attains a great size, contains some pints of fluid, and forms an appreciable abdominal tumour.—(2) Cysts, varying in size from a pin's point to a hazel-nut, are not uncommonly developed in kidneys affected with chronic desquamative nephritis. Result of obstruction of uriniferous tubes by exudation.—(3) Congenital cystic degeneration, may be complete or incomplete. Infants sometimes born with large irregular-shaped kidneys made up entirely of cysts, without any trace of secreting tissue. Usually combined with other malformations.—(4) General cystic degeneration may occur gradually in adults, owing to expansion of portions of uriniferous tubes, with obstruction and atrophy of intervening sections. Symptoms come on very gradually, not very marked: perhaps, frequent attacks of hæmaturia, albuminuria, pains about loins. Occasionally, enlargement of kidneys, so as to produce distinct tumours. Death from some complication, or ultimately from uræmia.

RENAL PARASITES.—Four varieties of Entozoa may infest the kidneys:—(1) Hydatids, containing echinococci. Very much more rare than in the liver. Sometimes, renal hydatid cysts discharged with urine: perhaps with symptoms like those produced by passage of a calculus. Recovery may follow: or cysts may be discharged at intervals for years: or death occurs from rupture of parent cyst into parts around kidney, or from its exciting inflammation and suppuration. Opium, iodide of potassium, and warm baths are remedies to be tried. If cyst attain a large size, puncture with a fine trocar may be justifiable.—(2) Distoma hæmatobium: cause of endemic hæmaturia of Egypt &c. See *Hæmatozoa.*—(3) Tetrastoma renale: said to infest uriniferous tubes, but no instance of its occurrence known in this country.—(4) Strongylus gigas: very rare. One specimen in Museum of Royal College of Surgeons.—See *Entozoa.*

RENAL TUBERCLE.—Synon. *Tuberculous Pyelitis.*—Much more commonly a secondary than primary affection. In former case, seldom detected till after death: both glands involved. In latter, disease extends from kidney to ureter and bladder. Large tubercular cavities produced, with destruction of renal tissue. Urine contains pus, blood, and tubercular débris if ureter be unobstructed. One or both kidneys may be affected. Symptoms, those of tuberculosis; with burning pains in loins, purulent and bloody urine, and rapid emaciation. Perhaps, renal tumour; owing to confluence of tubercular deposits, or to gradual distension of pelvis by retained urine and pus. Death occurs from exhaustion, in course of eighteen months; from progress of similar disease in other organs; or from uræmia, or ichorhæmia.

RETINITIS.—From *Rete,* a net or web; terminal *-itis.* Synon. *Inflammatio Retinæ.*—Inflammation of the delicate nervous membrane called the retina occurs as a sympathetic affection in the course of other ophthalmiæ. As a simple idiopathic inflammation it is exceedingly rare.

Symptoms. Acute deep-seated pain in eyeball, extending to temples and forehead; great intolerance of light: diminution or loss of power of vision; frequent sensations of flashes of light. Pupil found contracted; iris loses its brilliancy and becomes motionless; vascularity of the sclerotic. Constitutional disturbance severe. High fever and delirium often present.—When acute symptoms have subsided, the ophthalmoscope shows vessels of retina congested and varicose; transparency of retina impaired; while extravasations of blood may often be seen, owing to rupture of one or more vessels. In unfavourable cases, masses of black pigment are visible on choroid and retina: these tissues gradually get atrophied: total blindness results.

Generally caused by exposure to vivid light—large fires, furnaces, &c. Reflected light very injurious to retina; hence pernicious effects of glare from snow, or from burning sands of tropical climates.

Treatment. Perfect rest in a darkened room. Application of cold lotions or of hot fomentations, according to the patient's feelings. Mild purgatives. Sedatives to relieve pain. Simple diet.

RETRO-PHARYNGEAL ABSCESS. — From *Retro*, backwards : *Φάρυγξ*, the pharynx : *Abscedo*, to form an abscess.—Result of acute or chronic inflammation of loose areolar tissue between posterior wall of pharynx and muscles on anterior part of spine. Often connected with strumous diathesis. Perhaps may occur in association with syphilitic taint. More common in children than adults.

Symptoms. Derangement of cerebral, respiratory, and circulatory systems. Fever, nausea, restlessness, soreness of throat. Difficulty in swallowing and breathing. A fixed and retracted state of head : rigidity of muscles at back of neck. More or less locked state of jaws : painful and difficult and drawling articulation. As painful deglutition increases, solids are refused ; liquids regurgitate through nose. Spasmodic efforts at swallowing, as if there were food in gullet.—On examining fauces, a firm and projecting tumour is felt just beyond base of tongue.—Death has occurred from convulsions ; from coma ; from tumour pressing pharynx forwards on epiglottis and rima glottidis, causing suffocation ; from abscess suddenly bursting, with inspiration of pus into trachea.

Treatment. Puncture with a bistoury : head to be pressed forwards directly opening is made so as to facilitate escape of pus by mouth. Ammonia and bark, 371. Syrup of phosphate of iron, 405. Quinine, 379. Cod liver oil. Nourishing food. Malt liquors : wine.

RHEUMATISM.—*Ῥευματισμὸς*, a flux or looseness ; *ῥευματίζομαι*, to be affected with looseness,—from *ῥευμα*, a humour floating in the body causing disease. There are two forms of rheumatism, the acute and chronic :—

1. Acute Rheumatism. — Synon. *Rheumatic Fever ; Synocha Rheumatica ; Hæmoarthritis.*—A formidable disease, owing to the suffering it causes, the intensity of the fever, and the damage it so frequently inflicts upon the heart.—A superabundance of lactic acid in the system is the supposed cause. The suggestion probably true, that ordinarily the starch of the food is first converted into lactic acid ; this then combines with oxygen to form carbonic acid and water, which is excreted by the lungs ; but under conditions unfavourable to this oxidation the lactic acid accumulates in the system (Headland).

Symptoms. Restlessness and fever, stiffness and aching pain in limbs, following exposure to cold and damp. Pain quickly increases ; swelling and tenderness of one or more large joints : high fever and constitutional disturbance. Patient soon rendered a pitiable spectacle of helpless suffering. He dare not move ; pain in joints so agonising, that weight of bed-clothes cannot be borne ; skin bathed in sweat, of a disagreeable acid or sour odour ; pulse full, bounding, and quick ; usually constipation, sometimes diarrhœa ; tongue moist, but thickly furred ; and urine high coloured, acid, scanty, loaded with urates. Relapses very common.

Complications :—A tendency to metastasis, the inflammation suddenly leaving one part and reappearing in another. Most serious

change, when the pericardium or endocardium becomes affected. Sometimes complicated with bronchitis, pleurisy, pneumonia, or inflammation of brain and its membranes. Disorganisation of one or more of the affected joints rarely occurs.

When uncomplicated, average duration from twelve or sixteen to thirty days. If fatal, this result usually due to the cardiac affection.

Treatment. Venesection been recommended, but loss of blood is badly borne. Saline purgatives, 140, 141, 152, 155, 165, 169. Calomel and jalap. Opiates, in doses sufficient to relieve the pain. Powder of ipecacuan and opium, 213. Quinine. Quinine and iodide of potassium. American hellebore. Guaiacum. Liquor potassæ. Sulphur. Nitrate of potash, sometimes to extent of 480 grains in 24 hours. Lemon juice. Free blistering, excluding all drugs and other applications.

Most reliable remedies:—Opium. Large doses of the alkalies and their salts, as from 20 to 60 grains of bicarbonate of potash or soda, in an effervescing draught, every three or four hours. Colchicum, if urine continue loaded with lithates. Iodide of potassium, if disease remain stationary in one or two joints. Hot air or vapour baths, if perspiration be scanty. *During convalescence:*—Ammonia and bark, 371. Quinine and iodide of iron, 382. Mild preparations of steel, 390, 391, 394, 401, 403, 404. Cod liver oil, 389.

Diet:—At first low; slops and arrowroot. Beef tea; milk and lime water, 14; eggs, cream, and beef extract, 5; sherry and soda water. Light puddings; vegetables; white fish. Mutton, poultry, and beef not to be allowed too soon. Malt liquors, port wine, and sugar to be avoided.

Local remedies:—To lie between blankets in preference to sheets. Wrapping affected joints in cotton wool and oiled silk. Hot alkaline fomentations. Hemlock poultices. Small blisters at a late stage. Iodine paint, 205. If the heart be irritable, large hot linseed-meal poultices. If there be effusion into pericardium, large blisters over cardiac region. Turpentine stupes.

2. Chronic Rheumatism. — Synon. *Rheumatismus Non-febrilis; Rheumatalgia; Arthrodynia.* — Sometimes a sequel of rheumatic fever, but generally a separate constitutional affection. Very common in old age. The fibrous textures around the joints, or the fibrous envelopes of the nerves, or the aponeurotic sheaths of the muscles, or the fasciæ and tendons, or the periosteum are the parts which suffer.

Varieties:—Gonorrhœal rheumatism. Lumbago. Sciatica. Stiff or wry neck. Pleurodynia.

Treatment. Attention to the general health, and to the organs of digestion. Sedatives to procure sleep.—Iodide of potassium, with tincture of serpentary or bark, 31. Liquor potassæ. Ammoniated tincture of guaiac, 43. Cod liver oil, 389. Quinine, with or without belladonna, 45, 386. Iodide of iron, 32. Ammonia and bark, 68, 371. Oil of turpentine, 50. Colchicum, 46. Sarsaparilla, 26. Corrosive sublimate, 27. Red iodide of mercury, 54. Arsenic, 52. Aconite, 330, 331. Sulphur, 43, 148. Hydrochlorate of ammonia, 60. Tincture of actea racemosa, 320. Arnica. Morphia, chloroform, and

Indian hemp, 317. Opium and ipecacuanha, 324. Subcutaneous injection of morphia, 314.

Sulphurous waters of Harrogate, 466. Sea air, and warm salt water baths. Alkaline waters of Vichy, 479. Antacid springs of Carlsbad, 496. Hot air or vapour baths. Alkaline baths. Sulphur baths.—Ventnor, 434; Hastings, 432; Rome, 447; and Nice, 443, are good winter residences for habitual sufferers.

Locally:—Blisters, 208. Iodine paint, 205. Belladonna and aconite liniment, 281. Chloroform and opium liniment, 282. Veratria ointment, 304. Powdered sulphur. Plasters of belladonna or opium. Acupuncture. Ironing the part, a piece of brown paper being placed between the skin and hot iron. Moxas. Application of a bladder of ice for a few minutes. Flannel next the skin.

RHEUMATOID ARTHRITIS.—From Ῥευμα, a humour floating in the body causing disease; εἶδος, appearance: ἄρθρον, a joint, terminal *-itis*. Synon. *Rheumatic Gout; Chronic Rheumatic Arthritis; Nodosity of the Joints.*—A chronic inflammatory affection of the joints, not unlike gout in a few of its characters, somewhat resembling rheumatism in other points, but differing essentially from both.

Symptoms. Pain, swelling, and stiffness of affected joints. In acute cases, disease comes on abruptly with fever and general disturbance; but usually the affection is chronic, commencing with languor, restlessness, loss of appetite, and vitiated secretions. The joints become stiff and painful; effusion into the synovial membranes causes them to appear swollen and distended; and if hip, knee, or ankle be the parts affected, there is lameness. Fluctuation can sometimes be detected; or, a distinct kind of crepitus may be felt. A peculiar crackling of the joints on movement is appreciable to the patient. If the disease be of long continuance a degree of rigidity may occur from thickening of the articular textures, equal to that produced by bony anchylosis; or the joint may become quite disorganized from a gradual wasting of the cartilages. In addition, the articulations become deformed; there are painful spasms in the muscles of the limbs, mental depression, general lassitude, dyspepsia with acidity of stomach, rest at night disturbed, every change in the weather felt, while owing to the languid circulation the patient suffers much from cold. The complaint always lasts for several months,—sometimes for years.

Treatment. General health to be improved. Uterine functions to be regulated. Generous diet, with animal food. Claret, sherry, brandy, whisky, bitter ale. Warm clothing. Carriage exercise. Sugar, pastry, pickles, and cheese to be forbidden.

Sulphate and carbonate of magnesia, 141. Confection of sulphur. Sulphate of soda, 148, 153. Cod liver oil. Arsenic with quinine, iodide of potassium, steel, taraxacum, and colchicum, 31, 32, 46, 52, 381. Either of foregoing drugs separately, especially arsenic. Lemon juice. Mineral acids, 376, 378. Guaiacum, 43. Bark and serpentary, 375. Opium. Indian hemp. Aconite. Chloroform. Tincture of arnica. Leeches. Blisters. Mercurial or iodine plasters. Sulphur, and flannel bandages. Aconite lotions. Friction, or shampooing.

Sulphur or alkaline baths, 121, 125. Arsenical baths, 128. Vapour or hot air baths. Harrogate waters, 466. Buxton, 464. Bath, 460. Spa, 467. Schwalbach, 488. Aix-la-Chapelle, 483. Wiesbaden, 489. Wildbad, or Baden-Baden, 492. Carlsbad, 496. Vichy, 479.

RHINOLITHES.—From Ῥὶν, the nose; λίθος, a stone.—Concretions of phosphate and carbonate of lime, magnesia, and mucus, which occasionally form in one of the nasal cavities. Nucleus may consist of a shell, piece of pencil, bean, or any foreign body. Easily detected by sounding with a probe. Removal with forceps.—See *Ozæna.*

RHINORRHŒA.—From Ῥὶν, the nose; ῥέω, to flow. Synon. *Rhinoblennorrhœa; Nasal Gleet.*—Chronic inflammation of the nostrils, producing a constant discharge of mucus.—See *Ozæna.*

RICKETS.—Synon. *Rachitis; Osteomalacia Infantum.*—A disease peculiar to childhood, as osteomalacia is to adults. Usually appears to commence about the fifteenth or eighteenth month after birth, when the child begins to walk. The bones as they grow remain soft and flexible: they bend under weight of body. The osseous tissue looks natural in structure, but is insufficiently impregnated with earthy salts. Strumous children of the poor mostly suffer.

Symptoms. Physiognomy peculiar. Growth stunted. Head usually large; forehead prominent; fontanelles close slowly. Tonsils often enlarged. Chest narrow, with prominent sternum—*pigeon-breasted.* Spinal curvature. Pelvic deformity, so that in after life parturition would be attended with great difficulty. Curvature of the limbs, especially of lower extremities (bandied legs). The deformed bones become firm after puberty.

Treatment. Attention to general habits, exercise, and clothing. Animal food: milk: raw eggs. Phosphate of lime. Phosphate of iron. Chemical food, 405. Cod liver oil. Tannic acid. Carrageen, or Irish moss. Light supports for spine, or lower limbs. Bathing with salt water. Friction. Sea air.

RODENT ULCER.—From *Rodo*, to gnaw. Synon. *Lupoid Ulcer; Cancroid; Peculiar Ulcer of Eyelids.*—Commences as a hard, irritable, and painful tubercle. Ulceration; the ulcer having hard margins, a dry glossy surface, and tubercles in or adjoining it. Tendency to spread slowly in every direction, completely destroying all adjacent textures—as muscle, bone, eye &c. Most frequently situated on eyelids; next, on nose or cheeks; sometimes seen on scalp, vulva. Lymphatic glands not affected. General health often remarkably good, even when the ulceration has produced frightful disfigurement. Occurs equally in both sexes, after middle period of life. No affinity between rodent ulcer and lupus: former, more allied to cancer; latter, a skin disease.

Treatment. A cure can be effected by thorough extirpation with knife or caustics,—chloride of zinc, potassa fusa, nitric acid: in either operation, anæsthesia should generally be employed. Opium. Cod liver oil. Nourishing food.

ROSEOLA.—Dimin. of *Rosa*, a rose. Synon. *Rose Rash; False Measles; Epidemic Roseola.*—A non-contagious inflammatory affection of the skin. One of the *Exanthemata*. Characterised either by transient patches of redness, of small size and irregular form, distributed over more or less of surface of body; or by formation of numerous, small, separate, rose-coloured spots. Accompanied by slight fever. Occasionally prevails as an epidemic. Duration from one to seven days.

Roseola sometimes simulates measles, sometimes scarlatina. No coryza. Soreness and redness of fauces, with gastric disturbance, often present.—Roseola æstiva affects adults, especially women, in the summer. May arise in children from dentition. Eruption often preceded by chills and smart fever.

Treatment. Citrate of magnesia. Sulphate of magnesia with acid infusion of roses, 142. Compound rhubarb powder. Solution of acetate of ammonia with spirit of nitrous ether, 348. Aromatic sulphuric acid and compound tincture of gentian. Nitric acid. Quinine. Plain diet. Lemonade. Warm baths. Sponging with vinegar and water. During teething, lancing of gums may be required.

RUBEOLA.—From *Rubeo*, to blush. Synon. *Rötheln; Scarlatina Morbillosa; A Hybrid of Measles and Scarlatina.*—A compound of measles and scarlet fever.

For treatment, see *Scarlet Fever*. Maintain functions of skin. Colchicum has been especially recommended.

RUPIA.—From Ῥύπος, filth; owing to the foulness of the affected parts. Synon. *Ulcus Atonicum; Ecphlysis Rhypia.*—A non-contagious skin disease. May be regarded as a modification of pemphigus occurring in debilitated constitutions, and especially in systems contaminated with poison of syphilis. Characterised by eruption of flattened vesicles or bullæ; containing at first serous fluid, which soon becomes purulent or sanguinolent, and then concretes or dries into dark and black and rough scabs. Margins of surrounding skin inflame; serum continues to be poured out; incrustation increases in circumference and thickness until it somewhat resembles the shell of a limpet. As crusts fall off they leave circular ulcers, which often only cicatrize after lapse of many weeks. Loins and lower extremities most frequently affected. Duration varies from two or three weeks to several months. Seldom any danger, unless a great deficiency of vital power be present.

Varieties. Three forms usually described. When crusts are thin, and ulcers beneath them superficial,—*rupia simplex*. If crust be large, constituting marked feature of case,—*rupia prominens*. Where ulceration is extensive and deep and spreading,—*rupia escharotica*.

Treatment. Nitric acid and bark, 376. Quinine and mineral acids, 379. Quinine and steel, 380. Cod liver oil. Phosphate of iron, 405. Bullæ to be punctured. Generous diet: milk; wine or malt liquors. Warm baths. Change of air.—*In syphilitic form:*—Iodide of potassium and bark, 31. Iodide of iron, 32. Corrosive sublimate, 27. Red iodide of mercury, 54. Mercurial vapour baths, 131.

SAINT ANTHONY'S FIRE.—The popular name for *Erysipelas*. St. Anthony of Padua, was supposed to work miraculous cures of this disease.—See *Erysipelas*.

SCABIES.—From *Scabo*, to scratch. Synon. *Psora; Itch; Scotch Fiddle.*—A contagious troublesome skin disease, attended with great itching: irritation increased by warmth. Commences as a papular, vesicular, or pustular eruption: vesicles or pustules ruptured by scratching, causing excoriations. Most common about flexures of joints, especially on hands.

Due to an animal parasite,—the *Acarus Scabiei*, or *Sarcoptes Hominis*. Female larger than male: after impregnation she burrows beneath epidermis, forming furrows or cuniculi, in which her eggs are usually deposited. Males wander over surface of epidermis.

Treatment. Thorough washing with warm water and soft soap. Sulphur ointment. Sulphur baths, 125. Sulphur soap. Lotions containing creasote, carbonic acid, corrosive sublimate, or tobacco.—Contaminated clothes to be fumigated with sulphurous acid gas; or by exposure to a temperature of 180° F.; or by thorough sprinkling with powdered sulphur.

SCARLET FEVER.—This disease, known also as *Scarlatina*—from the Italian *Scarlatto*, scarlet—is an infectious fever, characterised by scarlet efflorescence of skin, and mucous membrane of fauces and tonsils; the efflorescence commencing about second day of fever, and declining about fifth. Often accompanied by inflammation of throat, and sometimes of submaxillary glands. Like measles, essentially a disease of childhood; but more to be dreaded. As a rule, scarlet fever occurs only once: in the event of a second attack there is often no rash, little or no throat affection, and the disorder runs a favourable course.

Three forms:—Scarlatina *simplex*, in which skin is most affected; scarlatina *anginosa*, in which both skin and throat are severely implicated; and scarlatina *maligna*, in which all the force of the poison seems to be expended upon the throat.

Symptoms. In *scarlatina simplex*, after a latent period of from 4 to 6 days, there is fever, lassitude, and headache. On 2nd day, eruption appears in form of numberless minute dots, of a bright scarlet hue. This terminates by desquamation of the cuticle: which begins about the end of 5th day. While the rash has been appearing, the mucous membrane of mouth, fauces, and tonsils has also been affected. Tongue covered with a thick white fur, through which red elongated papillæ project: as the fur clears off, the organ presents a strawberry appearance.

In *scarlatina anginosa*, more violent symptoms. Greater fever, delirium, prostration. The fauces, palate, uvula, and tonsils get swollen, and covered with an exudation of coagulable lymph. The eruption is delayed to 3rd or 4th day, and comes out in scattered patches. With its fading on 5th or 6th day, the fever and inflammation of throat begin to abate. Severe inflammation of the serous and mucous membranes to be feared.

In *scarlatina maligna*, the fever assumes a malignant or typhoid character. Great cerebral disturbance. Urgent prostration. Low muttering delirium. Dark incrustations of coagulable lymph, over uvula, tonsils &c. Cervical glands involved. The rash comes out late, disappears in a few hours, and is renewed several times. Often a fatal termination on 3rd or 4th day.

In all forms the urine to be examined daily; as to quantity, reaction, and freedom from albumen. Two great sources of danger:—suppression of urine with uræmia, and formation of fibrinous clots in right cavities of heart.

Sequelæ:—Ulceration and enlargement of tonsils. Strumous ulcers. Ophthalmia. Scrofulous enlargements of cervical glands. Abscesses in the ears. Diseases of the scalp. Acute rheumatism. Cardiac inflammation. Scarlatinal vaginitis. Anasarca, dropsy of the serous cavities, and acute desquamative nephritis with albuminuria: to be feared as much in mild, as in severe cases. Uræmia.

Treatment. No *prophylactic* remedy known. Acetic acid, belladonna, and inunction with oil or lard useless.—The *simple form* only requires confinement to the bed-room; a warm bath or two; proper clothing; spare diet; and attention to the bowels. Care to be taken lest the escape of the poison by the skin be checked, and thrown back upon the kidneys. Carbonate of ammonia, 361. Acetic acid; or a drink of vinegar and water. Sponging of skin with vinegar and water, 138. Daily inunction of entire surface with hot lard.

Scarlatina Anginosa:—Emetics of ipecacuanha at onset. Saline effervescing draughts. Carbonate of ammonia, 361, 364, 371. Cold or tepid sponging with vinegar and water. Cold affusion, 134. Inunction with lard. Scalp to be shaved and cold lotions applied, if there be much delirium. Good beef tea. Nourishing soups. Milk: cream. Raw eggs. Port wine.

Malignant Scarlet Fever:—Demands stimulants from commencement. Carbonate of ammonia. Bark. Port wine. Brandy. Quinine. Chlorine, 77. Hydrochloric acid and ether, 365. Ice. Acid drinks; or chlorate of potash drink, 360. Cold affusion, 134. Astringent gargles, 249, 252, 254. Nitrate of silver to throat. Essence of beef, 3. Restorative soup, 2. Cream. Raw eggs. Brandy and egg mixture, 17.

When Dropsy supervenes:—Compound jalap powder. Elaterium. Tincture of perchloride of iron. Ammonio-citrate of iron. Quinine. Mineral acids. Warm baths. Hot air or vapour baths. Nourishing food.

SCIATICA.—From Ἰσχίον, the hip. Synon. *Neuralgia Ischiadica; Ischialgia; Coxalgia.*—Acute pain in sciatic nerve.—See *Neuralgia; Rheumatism.*

SCIRRHUS OR HARD CANCER.—From Σκιῤῥὸς, indurated. Synon. *Scirrhoma; Carcinoma Fibrosum; Fibrous Cancer.*—The most frequent variety of cancer. Seen occasionally in stomach, upper part of rectum, and elsewhere; but most frequently by far in the female breast. Average duration of life, after patient's first observation of the disease, 48 months.—See *Cancer.*

SCLEREMA.—From Σκληρὸς, hard or stiff. Synon. *Algide Œdema* (from *Algeo*, to be cold; and *οἰδέω*, to swell).—A peculiar disease of new-born infants, not uncommon in France but rarely met with in this country. Consists of partial or universal induration of sub-cutaneous areolar tissue, with serous effusion.

Symptoms. Somewhat resemble those of ordinary anasarca. Obstruction to circulation,—probably caused by deficient expansion of extensive portions of lungs (atelectasis). Usually occurs within ten days of birth; mostly in feeble or premature children. The skin assumes a dry, stiff, waxy, yellowish appearance: it gradually gets distended and unyielding, so that the infant is said to be skin-bound. Temperature of body gets reduced. Infant appears prostrated, unhealthy, perhaps jaundiced, and as if dying from exhaustion. Indications of distress, restlessness, whining cries, refusal of food, feeble pulse, laborious respiration. Gastric and intestinal disturbance apt to set in. Death often occurs from asphyxia, within a week from commencement of attack.

Treatment. Warm baths. Friction with warm flannels. Body to be enveloped in cotton wool. Port wine with a few drops of tincture of bark. Ether. Acupuncture. Solution of raw beef in distilled water, 2. If child cannot suck, mother's milk to be drawn off in a spoon and given frequently. Goat's milk. Cream.

SCLEROTITIS.—From *Sclerotica*, the firm fibrous tissue of the eyeball; terminal *-itis*.—Inflammation of the sclerotic coat of the eye.

Two varieties:—

1. Rheumatic Ophthalmia.—Synon. *Ophthalmia Arthritica.*—Acute inflammation of the sclerotic excited by cold, or by the poison of rheumatism, or by gonorrhœa.

Symptoms. Pale pink redness of the eye; the turgid vessels being arranged in a radiated or zonular form, and being evidently beneath the conjunctiva. Severe aching pain round the orbit, in the eyebrow, and over the temple, always most severe at night. Occasionally, intolerance of light. Dimness of vision, from haziness of the cornea and contraction of pupil. Fever and constitutional disturbance.

Treatment. Attention to diet; avoiding port wine, beer, and sugar. Bark and iodide of potassium, 31. Iodide of iron and cod liver oil, 390. Colchicum, 46. Morphia. Henbane. Calomel and opium. Alkaline purgatives, 141, 148. Warm baths. Blisters behind the ears or to nape of neck. Friction of forehead with belladonna liniment, or with chloroform liniment. Application of muslin bags filled with chamomile flowers, and dipped in a hot and strong decoction of poppy heads. Eye-shades. Spectacles with glasses of a neutral tint. Collyria of little use.

2. Catarrho-Rheumatic Ophthalmia.—Not an uncommon affection: characterised by a combination of the symptoms of conjunctivitis and sclerotitis.

Symptoms. A feeling as of sand between the ball and lids. Circumorbital pain. Scarlet redness of eye, chemosis, intolerance of light,

epiphora &c. If unchecked may lead to ulceration of cornea, onyx, suppuration in anterior chamber, effusion of lymph into pupil. General health usually bad.

Treatment. Iodide of potassium and bark, 31. Opium. Nourishing diet: milk. Cod liver oil. Warm fomentations. Sedative collyria. Chamomile bags dipped in decoction of poppy heads.

SCROFULA.—From *Scrofa*, a sow; because swine were supposed to suffer from this disease. Synon. *Scrophula; Tabes Glandularis; Struma; King's Evil.*—See *Tuberculosis.*

1. Scrofulous or Strumous Abscesses.—Often commence insidiously in areolar tissue. Sometimes become indolent. Suppurate imperfectly. In other cases they burrow deeply, and in all directions. Long sinuses, from which exudes a thin sanious pus. Occasional extension to the bone,—necrosis resulting. General health much depressed. Only to be cured by a very nourishing diet; bark; iron; cod liver oil; and sea air. Iodine and its compounds regarded as anti-strumous remedies. "Chemical Food," *i.e.*, the phosphates of lime, iron, soda, and potassa, in syrup, 405. Anthracite has been recommended.

2. Scrofulous Ulcers.—An indication of the weak cachectic condition of the strumous system. Most commonly situated about neck, shoulders, arms, or hips. Extensive tracts of skin destroyed by their gradual extension. Efforts at repair slow and imperfect. Granulations absent, or exuberant and flabby: subjacent tissue boggy, and readily broken down by finger or probe. General health bad from the beginning, with daily deterioration. Cicatrization sometimes procured after destruction of the unhealthy tissue with strong caustics: nitric acid, or potassa fusa. Ordinary astringent lotions useless. Constitutional treatment most essential. Occasionally, strumous ulcerations and lupus co-exist.

3. Inflammation and Suppuration of Lymphatic Glands.—One of the most frequent results of the strumous habit. Glands of neck most liable. Extensive tracts of skin and areolar tissue sometimes destroyed. When pus has formed, early evacuation by knife or potassa fusa required. The resulting cicatrix becomes a great disfigurement. Constitutional remedies.—See *Adenitis.*

SCROTAL ELEPHANTIASIS.—Enormous hypertrophy of the scrotum. In many cases the tumour has reached below the knees. Very rare in temperate climates. There is no cure but by removal. —See *Barbadoes Leg.*

SCROTAL ŒDEMA.—The areolar tissue of scrotum may rapidly become infiltrated with serum as a result of erysipelas. Great constitutional disturbance: fatal sinking sometimes occurs early. Sloughing apt to take place. Tonics and stimulants must be freely employed. Scrotum to be well supported by small pillows. Fomentations.—See *Erysipelas.*

Simple œdema of scrotum is usually an accompaniment of general anasarca. If it cause distress, relief may be given by acupuncture.

SCURVY.—Synon. *Scorbutus; Land Scurvy; Sea Scurvy.*—A complex morbid state, caused by long-continued privation of fresh succulent vegetables or fruits, or their preserved juices.

Symptoms. Sallow dusky hue of countenance, and of skin generally. Swollen, spongy, pallid or livid gums. Fetid breath. Debility. Hemeralopia. Deafness. Dyspnœa. Sloughing of gums. Loosening of the teeth. Hæmorrhage from gums, nose, mouth, stomach, intestines. Extensive ecchymoses. Swelling and stiffness of legs. Want of energy: despondency. Diarrhœa. Dysentery. Dropsy. Exhaustion. Thrombosis.

Treatment. Lemon or lime juice. Oranges. Salads. Watercresses. Potatoes. Pickles. Broccoli. Cabbage. Vinegar. Horseradish. Wood sorrel. Common sorrel. Milk. Wine or beer. Spruce beer, 7. Fresh meat and fish. Raw meat. Fresh blood. Citric acid. Iron. Catechu. Gallic acid. Tannic acid lozenges. Tartrate, chlorate, nitrate, or phosphate of potash. Opium. Pure air. The recumbent posture.

SEPTICÆMIA.—From Σήπω, to putrefy; αἷμα, blood. Synon. *Septæmia; Putrid Infection.*—Contamination of the blood with putrefying matters.—See *Ichorhæmia.*

SIMPLE CONTINUED FEVER.—Synon. *Febricula; Ephemera* (when only lasting a day).—A mild disease, having a variable duration of from one to ten days.

Symptoms. Patient suddenly seized with lassitude, nausea, anorexia, chilliness, and pains in back and limbs. After a few hours,—heat of skin, rapid pulse, headache, thirst, constipation, and scanty urine. Perhaps slight delirium. Symptoms aggravated at night. About fourth day, or later, a remission; critical sweating, or diarrhœa. Convalescence often somewhat slow.

Treatment. The indications are:—(1) To moderate, when necessary, the violence of arterial excitement by saline laxatives, rest in bed, and low diet. (2) To support the powers of the system, as soon as they begin to flag. (3) To obviate local inflammations and congestions. And (4) To relieve any urgent symptoms if they arise.

SINGULTUS.—From *Singultus,* a sobbing. Synon. *Spasmolygmus; Hiccup.*—See *Hiccough.*

SLEEPLESSNESS.—Synon. *Insomnia* (from *In,* priv.; *somnus,* sleep); *Pervigilium* (from *Pervigilo,* to watch or be awake all night).

Often a premonitory symptom of insanity. Commonly present in mania, aggravating the symptoms. Desire for sleep often banished in the insane: sometimes they are afraid to sleep because of frightful dreams and visions. Sleep prevented by exciting passions; mental anxiety; many acute diseases; dyspepsia; diseases of heart and large vessels; pregnancy; jaundice, though sometimes where blood is much

poisoned there is a tendency to excessive drowsiness. Medicinal doses of strychnia, or nux vomica, will often cause bad nights.

Treatment. Daily exercise in open air. A digestible diet, such as will not favour production of acidity or flatulence. Avoidance of tea and coffee in after-part of day. Dinner at one or two o'clock in afternoon, with light supper at night. Bed-room to be quiet, well-ventilated, warm. Bed to consist of mattress, without too many heavy blankets. Some nervous subjects can only sleep with head quite low, and lying on face with arms folded underneath.

When there is debility, a tumblerful of port-wine negus, or mulled claret, or white-wine whey the last thing at night. A pipe of mild tobacco often unobjectionable.—Where skin gets hot and dry, a tumblerful of cold water or soda water on going to bed. Rapid sponging of body with tepid water. Warm foot bath. A hot-water bottle in bed draws the blood from brain to extremities. Wet compress over the eyes.

Removal of any physical cause for wakefulness. Aperients if there be constipation. Alteratives and laxatives if stools be unhealthy. Bismuth, or soda, if there be heartburn or acidity. A rag dipped in cold water, or a tight band round forehead, if there be headache. In some acute diseases, a bladder containing ice, to head.

Henbane, 325, 337. Stramonium and henbane, 323. Hop &c., 325. Indian hemp and henbane, 337. Morphia, chloroform, and Indian hemp, 317. Opiate enemata or suppositories, 339, 340. Hypodermic injection of morphia, 314. Codeia. Musk, with or without assafœtida, in hypochondriasis. When insomnia is due to nervous irritability, bromide of potassium, 42. Mesmerism. Hypnotism.

SMALL-POX.—Synon. *Variola.*—A continued infectious fever, attended with an eruption. Due to absorption of a specific poison. The disease would probably become extinct, were vaccination universally and efficiently performed.

Symptoms. This disease goes through four stages,—that of incubation, primary fever, eruption, and secondary fever.

The period of latency or incubation lasts twelve days. Then there is lassitude, headache, fever, vomiting, and well-marked muscular pains in back. These symptoms succeeded at end of 48 hours by eruption of small red pimples, which in course of a week inflame and suppurate. In many instances accompanied by a similar affection of mucous membrane of nose and mouth; generally by soreness of throat; in some, by swelling and inflammation of subjacent areolar tissue; occasionally by marked irritation of nervous system. When vomiting and pain of back are violent, they are generally precursors of a severe attack.

Peculiar eruption of pimples or papulæ begins to show itself on commencement of third day of fever, appearing in following order:—First on face, neck, and wrists; secondly on trunk; and lastly on lower extremities. The papulæ then gradually ripen into pustules, suppuration being complete by ninth day; at which time pustules break, and crusts or scabs form. In four or five days more these scabs are falling off.

The severity of the disease bears a direct relation to quantity of eruption. When pustules are few, they remain distinct, and separate from each other; when very numerous, they run together, coalesce, and lose their regularly circumscribed circular form. Hence, a division of small-pox into—variola *discreta*, and variola *confluens*. Former seldom attended with danger; latter never free from it. Eruption on face may be confluent, while it is scanty elsewhere; still the disease is of confluent kind. Sometimes, pustules so numerous that they touch each other, but do not coalesce; disease then said to be of *cohering* or *semiconfluent* form. If, in confluent cases, symptoms of malignancy and putrescency are added, the disease becomes *malignant small-pox*,—a most formidable affection.

The greatest difference between distinct and confluent forms is in the *secondary fever;* slightly marked in first, intense and perilous in second. Sets in usually about eleventh day of the disease, or eighth of eruption, and occasionally at once proves fatal; the system being overwhelmed by virulence of the poison. During its course, troublesome complications may arise,—as erysipelas, swelling of glands in groin and axilla, phlebitis, ichorhæmia, glossitis, pleurisy, pneumonia, ulceration through cornea, suppuration of ear, conjunctivitis &c.

No *contagion* so powerful or certain as that of small-pox: infection lasts from end of latent period until every crust has fallen off and skin cicatrised. One attack exhausts susceptibility of system to future influence of the poison, as a rule. Variola occurring in persons unprotected by inoculation or vaccination is fatal on average to one in every three. When variolous matter is introduced into skin—*inoculated small-pox*—disease is in all respects of a mild nature. Practice of inoculation, now illegal.

Treatment. In simple cases the less drugs are used the better. Patient to be kept quiet in bed; in a well-ventilated room, free from carpets, curtains &c. Some disinfectant to be employed,—iodine very good, 81. Diet,—arrowroot, gruel, weak beef tea, tea with milk, ripe fruits. Lemonade; barley water; plain water; raspberry vinegar and water; soda water; ice. Tepid sponging. Change of linen once a day. Mild saline laxatives, 139, 141, 155, 169. Opium or henbane, 315, 318, 325, 340: provided there be no fear of mucus accumulating in the bronchi and threatening suffocation. Sarracenia purpurea, useless. Good broths, wine, ether, bark &c. when maturation of pustules proceeds tardily. Complications to be palliated: antiphlogistic remedies injurious.

In secondary fever:—Mild laxatives, if necessary:—Effervescent citrate of magnesia; compound rhubarb powder. Astringents, if there be diarrhœa. Sedatives, once or twice daily, if there be restlessness. Nourishing food: pounded meat in beef tea, good soup, milk or cream, raw eggs. Alcoholic stimulants, in proportion to the depression.—If any boils or abscesses form, early incision.

For sloughy and gangrenous sores:—Quinine, 379. Bark and nitric acid, 376. Ale, wine, or brandy. Milk: pounded beef. Water bed.

To prevent pitting:—Olive oil. Glycerine and rose water (equal parts). Lime liniment. Nitrate of silver. Puncturing the pustules.

Collodion. Gutta percha and collodion. Mercurial ointment. Tincture of iodine. Sulphur. Linseed or yeast poultices. Water dressing. Oxide of zinc ointment.

SPANÆMIA.—From Σπανὸς, thin or poor; αἷμα, blood. Thin or poor blood: a diminution in the quantity of red corpuscles.—See *Anæmia.*

SPERMATORRHŒA.—From Σπέρμα, seed; ῥέω, to flow. Synon. *Spermorrhœa; Gonorrhœa Vera; Profluvium Seminis; Pollution.* —A deranged state of mental and bodily health, due to the too frequent escape of seminal fluid. Masturbation the most common cause.

Symptoms. There may be only a repeated escape of seminal fluid; or this may be associated with morbid changes in vesiculæ seminales, ejaculatory ducts, bulbous portion of urethra, and prostate gland. Urine sometimes rendered slightly albuminous by seminal fluid.

General weakness: nervous irritability, with a dreamy absent kind of manner. Flatulence and constipation. Dulness of sight and perhaps of hearing. Weakness of memory. Attacks of palpitation, giddiness, headache, neuralgia. In extreme cases, final result may be epilepsy, phthisis, impotence, insanity.

Treatment. *General rules:*—Moderate mental and bodily work. Cheerful society. Not more than eight hours for sleep, on a mattress, without too much clothing. Obscene works of quack doctors and sham museums, to be shunned like virulent poisons. Avoidance of heavy meals, alcoholic drinks, and tobacco: substitution of milk for tea and coffee. If emissions take place when patient lies on his back, a cotton-reel to be tied over middle of spine at night. Salt water sponge baths, tepid or cold, with friction of skin. Careful ablution of glans penis to remove irritating secretions of sebaceous follicles. Support of testicles by suspensory bandage.

Drugs:—Phosphoric acid, nux vomica, and bark, 376. Sulphate of zinc and nux vomica, 409. Phosphate of zinc. Quinine and iron, 380: best avoided in single men, as all ferruginous tonics produce congestion of sexual organs. Cod liver oil. Bromide of potassium. Camphor, conium, and belladonna, 326. Digitalis. Ergot of rye. Cubebs.—Removal, when present, of oxyurides from rectum; or of excessive acidity of urine.

Local treatment:—Only required in exceptional cases. Introduction of metallic sound into bladder, once or twice a week. Nitrate of silver to prostatic portion of urethra,—Lallemand's porte caustique. Circumcision. Galvanism.

SPINA BIFIDA.—Synon. *Hydrorachitis,* from Ὕδωρ, water, and ῥάχις, the spine; *Hydrorachis Congenita; Cleft Spine.*—A congenital deficiency of the posterior laminæ and spinous process of one or more vertebræ; owing to which there is undue distension of membranes of cord with cerebro-spinal fluid. May exist in cervical, dorsal, lumbar, or sacral region: most common in lumbar.

Symptoms. A tumour is formed, varying in size from a walnut to a child's head. There is fluctuation: swelling most tense when

child is held upright: swelling semi-transparent: skin may be unaffected, or congested and blue. Prognosis unfavourable, if complicated with hydrocephalus; if there be paralysis of bladder or rectum and lower extremities; if the tumour threaten to burst by increasing in size. When only two or three upper lumbar vertebræ are affected, the spinal cord seldom deviates from its course and only the posterior spinal nerves have any connexion with the sac. If tumour occupy part of lumbar and part of sacral region, the cord itself and its nerves will almost always be found in close contact with the sac. The disease is not necessarily fatal.

Treatment. If general health be good and tumour small, interference will be unnecessary, beyond protecting the growth by a piece of leather or gutta percha moulded to the part. Where there is slow enlargement pressure may be tried by an air pad, or by painting with collodium. Where growth is rapid, and there is a fear of skin giving way, tapping with a small trocar may defer a fatal result: after emptying the sac, pressure to be applied. Iodine injections have succeeded twice at least: their employment fraught with danger. In another case, a cure was effected by application of a clamp to the broad base, the instrument being gradually tightened until the tumour sloughed off.

SPINAL CURVATURE.—The causes of spinal curvature are:—Peculiar avocations, causing the muscles on one side to become unduly developed and powerful: *e.g.* habitual use of right arm in blacksmiths. Constant assumption of an unnatural attitude: *e.g.* nurses carrying children always on one arm; repeatedly standing on right leg with left knee somewhat bent. General weakness, producing a relaxed and flabby state of all the tissues; or a deficiency of earthy matters in the osseous system, so that there results a loss of equilibrium between the resistance of spinal column and weight of upper part of body: *e.g.* curvature from rickets, and destruction of the bodies of the vertebræ by caries.—There are three principal varieties: —*Lateral Curvature*, the convexity being to either side, but usually to the right. *Posterior curvature*, or excurvation. And *anterior curvature*, or incurvation.

1. Lateral Curvature.—The most common form. Appears chiefly in young women between the ages of ten and eighteen; who are said to *outgrow their strength*, *i.e.* the wants of the system are insufficiently supplied owing to imperfect assimilation of food, too little outdoor exercise, and inattention to position while standing or walking.

Symptoms. One shoulder observed to be higher than the other: or *a growing out* of one scapula. While one shoulder is high, the other is unduly depressed. So one hip projects, while the opposite curves inwards. On examination the vertebral column is found to be curved: in double lateral curvature it is twisted like the italic *f*. As the thoracic and abdominal cavities are more or less deformed, the play and free movements of the viscera get impeded. If there be difficulty in taking full inspirations, dyspnœa will be present. The action of the muscles of trunk is impaired. General health suffers.

Pain, from pressure exerted on the nerves. In curvature from rickets there is also distortion of the limbs: patient's aspect rickety.

Treatment. Maintenance of general health at highest point of efficiency. Animal food: milk; raw eggs. Cod liver oil. Sea air, and baths. Quinine and iron, 380, 382. Phosphate of iron; chemical food, 405. Strengthening of muscles and ligaments which act on vertebræ, by frictions, palpation, shampooing. Carefully devised gymnastic exercises. Removal from spinal column, by proper apparatus, of such weights or forces as tend to keep the various segments of spine in an unnatural relation to one another.

2. Posterior Curvature.—Chiefly affects the cervical and dorsal regions. May be caused in infancy by the frequent practice of raising the child by placing the hands under the arm-pits, and so compressing the ribs and forcing back the sternum and spine. The muscles and ligaments which keep the column erect, become relaxed. In rare cases, there is disease of bodies of vertebræ.

3. Anterior Curvature. — Synon. *Angular Curvature; Pott's Curvature.*—The most uncommon variety. Generally associated with some constitutional affection (scrofula); producing caries or ulcerative destruction of bodies of vertebræ, or interstitial softening and absorption of calcareous elements of osseous texture. As many as five or six vertebræ, with the intervertebral substances, may be affected. More frequent about mid-dorsal region than elsewhere.

Symptoms. General indications of scrofula. Weakness, coldness, and numbness of legs. Twitchings and spasms of legs. Subsequently paralysis of bladder, rectum, and lower extremities. Tenderness or dull aching pains, in back. Tightness of chest, with more or less dyspnœa. Occasionally, formation of strumous abscesses. Exhaustion and hectic. Under favourable circumstances, disease gets arrested; bones collapse, anchylosis occurs, and pus becomes absorbed; patient recovering, but with incurable deformity. Sometimes sudden death; owing to diseased bodies of vertebræ giving way and crushing spinal cord, or from occurrence of dislocation of odontoid process of axis in consequence of ulceration and destruction of its ligament.

Treatment. Perfect rest in horizontal position is indispensable. Use of a reclining couch, so shaped as to keep the trunk perfectly quiet. A stiff bandage, or pair of stays, extending from occiput to hips, to insure rest. Any active attempts to remove deformity will altogether prevent a cure of the disease. Pain to be relieved by belladonna or opium plasters: issues, setons, blisters, or leeches worse than unnecessary. Abscesses to be opened when they point. Improvement of general health, by good diet, cod liver oil, phosphate of lime, bark, or steel. During convalescence, mechanical support to the trunk judiciously applied.

SPINAL HÆMORRHAGE.— Synon. *Myelorrhagia; Myelapoplexia; Apoplexia Myelitica; Apoplexy of the Cord; Paralysis from Effusion of Blood into Spinal Canal or into Substance of Cord.*— More rare than cerebral hæmorrhage. Arises from injury; acute

inflammation of cord or membranes; fatty degeneration of coats of vessels; caries and other disease of vertebræ.—Blood poured out external to dura mater; or between membranes; or into grey portion of cord. Death may happen at once; or after a variable interval from chronic softening of nervous substance.

Symptoms. Vary according to seat of ruptured vessels. Blood effused between the membranes, gravitates to lowest part of spinal canal: hence, paralysis which gradually extends upwards. Acute and sudden pain in back, sometimes in head. Often, severe convulsions. Difficult breathing when there is pressure on upper part of cord. Heart's action depressed. Surface pale and cold. Consciousness unimpaired.—Effusion into substance of cord produces sudden paralysis in all parts supplied with nerves below its seat: where hæmorrhage is very slight, loss of power occurs slowly after lapse of some hours.

Treatment. Further effusion to be checked by perfect repose: application of ice along spinal column. Aconite, to moderate heart's action if it be excited.

SPINAL IRRITATION.— Synon. *Rhachialgia; Neuralgia Spinalis; Notalgia.*—Probably no disease exists deserving this name. The symptoms mostly observed in women: pains about mammæ, thorax, abdomen, or uterus. Tenderness on pressure over spinous processes of certain vertebræ. The suffering due to a combination of myalgia and hysteria, with constitutional weakness. This opinion confirmed by curative influence of belladonna plasters; nourishing food; cod liver oil; bark or steel; sea air; and moderate exercise.

SPINAL MENINGITIS.—From *Spina*, the backbone: Μῆνιγξ, a membrane; terminal *-itis.*—Synon. *Perimyelitis; Myelomeningitis; Acute Paralysis from Inflammation of Membranes of Spinal Cord.*— Acute inflammation of membranes of cord not a common disease. It terminates in resolution, effusion of serum, softening of cord, or suppuration. When acute, may be associated with disease of cerebellum or of cerebral membranes; when chronic, mostly connected with caries of vertebræ. Mechanical injuries, and exposure to wet and cold in rheumatic subjects, the most frequent causes.

Symptoms. High fever and sleeplessness. Acute burning pains along spine, extending into limbs; greatly aggravated by motion and pressure; often simulating rheumatism. Rigidity, or tetanic contraction of muscles of neck and back. Feebleness of limbs, perhaps to extent of paralysis of lower extremities: loss of power extends upwards as effused serum increases in quantity. Suffocating sensations: feeling of constriction in neck, back, and abdomen. Retention of urine. Priapism. Obstinate constipation, sometimes succeeded by diarrhœa. Great prostration, if morbid action proceed: sometimes, feverish delirium and coma.

Cerebro-spinal meningitis occasionally occurs as an epidemic: inmates of workhouses, soldiers in over-crowded barracks, liable to it.

Treatment. Iodide of potassium and aconite, 31. Corrosive sublimate and sarsaparilla, 27. Red iodide of mercury, 54. Aconite and

guaiacum, 330. Stramonium. Henbane. Belladonna. Castor oil. Calomel and jalap.—*Locally*:—Lint, saturated with belladonna or aconite liniment, and oiled silk. Linseed poultices. Fomentations with poppy heads and chamomile flowers. Ice? Blisters. Tartarated antimony ointment. Painting of spine with diluted iodine liniment. Leeches.

To prevent the spread of epidemic cerebro-spinal meningitis, removal from unhealthy locality is necessary.

SPINAL TUMOURS.—Paralysis may arise from long-continued pressure of tumours on the cord, producing partial atrophy. Morbid growths consist of tubercle, cancer, bone, or hydatid cysts. Exostosis of odontoid process of second cervical vertebra, an occasional cause. Sometimes, tumour has its origin in syphilitic disease of vertebræ.

Symptoms. Come on slowly. Paralysis often not manifested until great pressure is exerted. Paralysis of motion always precedes that of sensation. Pain over seat of growth. Cramps, and convulsive movements of extremities. Systemic disease where tumour is of a tubercular, cancerous, or syphilitic nature.

Treatment. Iodide of potassium. Iodide of ammonium. Red iodide of mercury. Corrosive sublimate. Syrup of iodide of iron. Cod liver oil. Nourishing food: milk. Counter-irritants to painful parts of spine, occasionally useful.

SPIROMETRY.—From *Spiro*, to breathe; *μετρέω*, to measure. The mode of measuring the quantity of air which the lungs can contain.

Spirometers, or Spiroscopes, or Pneumometers, are instruments for measuring the volume of air expired from the lungs. This volume is diminished in each stage of phthisis. Quantity of air expired after most complete inspiration is the *vital volume* or *vital capacity*. The vital capacity always increases with stature; also slightly affected by weight, but not sufficiently to interfere with correctness of following table, which shows the capacity in health and in the three stages of phthisis:—

Height.	*Capacity in Health.*	*Capacity in Phthisis Pulmonalis.*		
		1st Stage.	2nd Stage.	3rd Stage.
Ft. in. Ft. in.	Cub. in.	Cub. in.	Cub. in.	Cub. in.
5 0 to 5 1	174	117	99	82
5 1 „ 5 2	182	122	102	86
5 2 „ 5 3	190	127	108	89
5 3 „ 5 4	198	133	113	93
5 4 „ 5 5	206	138	117	97
5 5 „ 5 6	214	143	122	100
5 6 „ 5 7	222	149	127	104
5 7 „ 5 8	230	154	131	108
5 8 „ 5 9	238	159	136	112
5 9 „ 5 10	246	165	140	116
5 10 „ 5 11	254	170	145	119
5 11 „ 6 0	262	176	149	123

This table reads:—A man whose height is between 5 ft. 7 in. and

5 ft. 8 in. should breathe in health 230 cubic inches: in first stage of consumption this is reduced to 154; in second, to 131; in third, to 108 cubic inches.

To test the vital capacity the patient loosens his vest, stands perfectly erect, takes as deep an inspiration as possible, and places mouthpiece of spirometer between his lips. The observer having opened the tap, patient empties his lungs, steadily making deepest possible expiration; at termination of which the operator turns off the tap, thus confining the air in receiver. The receiver is then to be lightly depressed until the surfaces of spirit in bent tube on outside of instrument are on a level with each other, when the vital capacity may be read off from scale.

SPLENIC DISEASE.—The spleen, like other glands, is liable to,—Congestion, inflammation, softening, abscess, gangrene; tubercular and malignant disease; fibrinous deposits—remains probably of extravasated blood; serous and hydatid cysts; and simple enlargement. —More common among residents of tropical and marshy than of temperate climates.

Enlargement of Spleen ("Ague-cake") generally results from repeated attacks of intermittent fever. Sufferers from it have a peculiar sallow and unhealthy aspect; anæmic appearance of gums and buccal mucous membrane; tendency to hæmorrhage; dyspepsia; debility and loss of flesh. When result of ague,—aperients; bark or quinine; arsenic. In other forms,—steel; bromide of potassium. Friction with diluted ointment of red iodide of mercury. Good nourishing food. Residence in a dry and bracing locality. Avoidance of mercury and depletion. Iodine, iodide of lead, nitric acid, ergot of rye, have been employed. Rusot (an extract prepared by natives of India from the Berberis Lycium and Berberis Aristata) has been strongly recommended. Extirpation of the spleen (Splenectomy) has been resorted to.

STOMATITIS.—From *Στόμα*, a mouth; terminal *-itis*. Inflammation of the mouth.—A common disease of young children. It may occur in three forms,—*i.e.*, according as chief seat of morbid action is in mucous follicles of mouth, substance of gum, or in tissues of cheek.

1. Follicular Stomatitis.—Inflammation of mucous follicles of mouth may be idiopathic, or a sequela of one of the eruptive fevers.

Symptoms. Difficulty of sucking. Abundant flow of saliva. Submaxillary glands tumid and tender. Restlessness, with fever. Loss of appetite. Diarrhœa with offensive motions. Small vesicles on inside of mouth, on tongue and fauces: vesicles burst and form ulcers, which are covered with dirty white or yellowish sloughs.

Treatment. Application, with a camel's hair pencil, of borax and glycerine, 250. Mild tonics. Carbonate of magnesia. Chlorate of potash. Attention to the milk supplied to child. Beef tea.

2. Ulcerative Stomatitis.—Synon. *Noma*, from *Νέμω*, to corrode. —Ulceration of the gums, sometimes destroying these parts and de-

nuding the teeth. Occurs mostly in badly nourished children. May be erroneously attributed to use of mercury.

Symptoms. Heat of mouth. Salivation. Offensive breath. Swelling of upper lip: enlargement and tenderness of submaxillary glands. Gums get swollen, red or violet coloured, and covered with a layer of pulpy greyish matter. If disease proceed, gums become destroyed by the ulceration: teeth are exposed and loosened. Inside of cheeks may be involved: irregular sloughing ulcerations.

Treatment. Chlorate of potash: gr. 5 may be given every four hours in sweet tea to an infant one year old. Subsequently, bark in wine. Cod liver oil. Pure milk; that of the ass, goat, or cow. Solution of raw meat, 2. Beef tea, 6.

3. Gangrenous Stomatitis.—Synon. *Cancrum Oris; Sloughing Phagedæna of Mouth.*—A formidable disease. Occurs in weakly children, between second and fifth year.

Symptoms. Debility. A hard indolent swelling on one cheek. On examining mouth, a whitish or ash-coloured eschar is seen in centre of cheek: slough increases until it spreads over whole of inside of cheek, lips, and gums. Saliva copious: horribly fetid. Great constitutional disturbance. Pulmonary complications apt to occur. Frequently, death.—Often attributed to use of mercury: may occur where none has been given.

Treatment. Application of nitrate of silver, sometimes of strong nitric acid to slough. Frequent syringing of mouth with warm water: with solution of permanganate of potash, 78: with chlorinated soda gargle, 254. Chlorate of potash in bark. Wine, or brandy. Raw meat, 2. Milk: cream.

STOMATORRHAGIA.—From Στόμα, a mouth; ῥήγνυμι, to break out. Synon. *Stomatorrhœa; Hœmorrhagia Oris; Buccal Hœmorrhage.*—Discharges of blood from mouth and throat seldom give trouble, except when they occur during last stages of scurvy or purpura, or after excessive use of mercury. In some instances, small veins about mouth and pharynx become varicose; should their walls rupture, severe or fatal bleeding may result. Ulcers about tongue seldom bleed much. Gangrenous glossitis has ended fatally with hæmorrhage.

Treatment. Ice. Cold astringent washes.—See *Hœmorrhage.*

STROPHULUS.—Synon. *Licheniasis Strophulus; Tooth-rash; Red Gum Rash.*—A papular skin disease, peculiar to infants and young children. Characterised by an eruption of minute, hard, sometimes slightly red, and clustered or scattered, pimples. May appear upon a part, or extend over whole surface of body. Irritation slight.

Varieties. Several described, according as papulæ are large or small, scattered or grouped. But whether papules are scattered, with red dots interspersed among them, as in *strophulus intertinctus;* or white and large, often resembling flea-bites, as in *strophulus candidus;* or forming circular patches, which come out successively in

different parts of body, as in *strophulus volaticus*, — is of little moment. Practically, all forms due to stomach or intestinal derangement; the consequence of improper feeding, or of irritation about gums from dentition.

Treatment. Careful diet. Avoidance of acid milk. Mild antacid aperients. Weak glycerine lotions. Lancing gums, in strophulus connected with difficult dentition.

STYES.—A stye or hordeolum (from *Hordeum*, barley) is merely a small boil, of the size and firmness of a barleycorn, situated at the edge of the eyelid.—See *Boils*.

SUDAMINA.—From *Sudo*, to sweat. Synon. *Hydroata; Papulæ Sudorales; Sweat Vesicles.*—Consist of crops of small transparent vesicles, which come out in many diseases attended with sweating. The skin looks as if dotted with small colourless glass beads. Most common on front of neck and chest. No treatment required.—See *Miliaria*.

SUPRA-RENAL CAPSULAR DISEASE.—Synon. *Morbus Addisonii; Supra-renal Melasma.*—An excessive degree of anæmia, supposed to be due to disease of the supra-renal capsules.

Symptoms. Commence very gradually: failing health and debility. Languor; loss of appetite; feeble pulse; irritability of stomach; progressive emaciation. Perhaps vomiting and gastric irritation; indications of disturbed cerebral circulation. A gradual discoloration of skin; most marked about face, neck, arms, circumference of navel; gradually becoming of a dingy or smoky hue. This discoloration now said (contrary to Addison's original views) not to be a necessary element: appears only when case has been of long duration, and perhaps not then.—After an average duration of eighteen months, death from extreme anæmia and exhaustion.

Treatment. Relief of prominent symptoms. Ferruginous tonics, with good nourishing food, are useful for a time.

SUSPENDED ANIMATION.—Synon. *Asphyxia; Apnœa; Apnœasphyxia.*—May result from syncope; strangulation, and obstruction of larynx by foreign bodies; inhalation of chloroform, carbonic acid, or other poisonous gases; narcotic poison; a stroke of lightning; and drowning. In all forms, treatment resolves itself into allowing free ingress of pure air to lungs; and then inducing warmth and circulation.

Appearances which indicate death:—Complete cessation of breathing and heart's action; eyelids half-closed, and pupils dilated; jaws clenched; tongue appearing between teeth, with frothy mucus about mouth and nostrils; fingers semi-contracted; with increasing coldness and pallor of surface.

1. Drowning, or Suffocation.—The following rules for *treatment* are essentially those drawn up by Dr. H. R. Silvester, and circulated by the Royal Humane Society:—

Rule 1.—*To maintain a Free Entrance of Air into the Windpipe.*—Cleanse the mouth and nostrils: open the mouth: draw forward patient's tongue, and keep it forward; an elastic band over the tongue and under the chin will answer this purpose. Remove all tight clothing from about neck and chest. Make sure that no foreign body is lodged in pharynx, larynx, or œsophagus.

Rule 2.—*To adjust the Patient's Position.*—Place the patient on his back on a flat surface, inclined a little from the feet upwards; raise and support the head and shoulders on a small firm cushion or folded article of dress placed under the shoulder-blades. Supposing that *natural respiration has ceased, proceed—*

Rule 3.—*To imitate the Movements of Breathing.*—Grasp patient's arms just above the elbows, and draw the arms gently and steadily upwards, until they meet above the head (this is for the purpose of drawing air into the lungs); and keep the arms in that position for two seconds. Then turn down patient's arms, and press them gently and firmly for two seconds against sides of chest (this is with the object of pressing air out of the lungs. Pressure on the breast-bone will aid this).

Repeat these measures alternately, deliberately, and perseveringly, fifteen times in a minute, until a spontaneous effort to respire is perceived; immediately upon which cease to imitate the movements of breathing, and proceed to *induce circulation and warmth.*

Should a warm bath be procurable, the body may be placed in it up to the neck, continuing to imitate movements of breathing. Raise the body in twenty seconds in a sitting position, and dash cold water against chest and face, and pass ammonia under nose. Patient should not be kept in warm bath longer than five or six minutes.

Rule 4.—*To excite Inspiration.*—During employment of above method excite nostrils with snuff or smelling-salts, or tickle throat with a feather. Rub chest and face briskly; dash cold and hot water alternately on them.

Rule 5.—*To induce Circulation and Warmth.*—Wrap patient in dry blankets and commence rubbing limbs upwards, firmly and energetically. Friction must be continued under blankets or over dry clothing.

Promote warmth of body by application of hot flannels, bottles or bladders of hot water, heated bricks, &c., to pit of stomach, armpits, between thighs, and to soles of feet. Warm clothing may generally be obtained from by-standers.

On restoration of life, when power of swallowing has returned, a teaspoonful of warm water, small quantities of wine, warm brandy and water, or coffee, should be given. Patient should be kept in bed; disposition to sleep encouraged. During reaction, large mustard plasters to chest and below shoulders will greatly relieve distressed breathing.

2. Intense Cold.—Acts chiefly on nervous system. There is giddiness; inability to see; weakness and rigidity of limbs; almost imperceptible respiration and pulse; tendency to profound sleep;

and coma.—Attempt restoration of circulation and sensibility by rubbing body with snow or ice or cold water. Friction with flannel long-continued. Very gradual application of warmth. A stimulating enema,—unless warm milk, or coffee, or beef tea, or wine can be swallowed.

3. Syncope.—From *Συγκόπτω*, to be affected with sudden prostration. Synon. *Swooning; Fainting.*—Remedies for fainting are:—Recumbent position with head low. Cold air. Cold water dashed over head and chest. Friction or sinapisms over heart's region. Small quantities of ammonia or brandy. Galvanism to rouse heart's action.—In apparently hopeless cases of syncope from hæmorrhage, a full dose of opium in brandy. Transfusion.

4. Intoxication, or Narcotic Poisons.—Treatment of:—Patient to be placed on his side, with head slightly raised. Cold affusion. Heat to extremities. Stimulating embrocations to chest. Use of stomach-pump, as emetics and tickling of fauces seldom act where insensibility is great. Artificial respiration. Galvanism. Strong tea or coffee. Solution of acetate of ammonia.

SYPHILIPHOBIA.—From *Syphilis;* and *φοβέω*, to dread. Synon. *Syphilomania; Noddle Pox.*—A morbid or hypochondriacal fear of syphilis, producing imaginary symptoms of the disease.

Symptoms. Allied to those presented in fictitious cases of spermatorrhœa or impotence. Great mental suffering. Impairment of general health. Urgent desire for anti-syphilitic drugs.

Treatment. Some preparation of zinc with strychnia or nux vomica, 407, 411. Iron, 380, 387, 408. Mineral acids, 376. Hypophosphite of soda and bark, 419. Cod liver oil. Good diet. Cold or tepid baths. Sea air.

SYPHILIS.—Several derivations have been given of this word; but according to Dr. Mayne none seem better than that of Blancardus, —*Σὺν*, together; *φιλέω*, to love. Synon. *Lues Venerea; Venereal Disease; Pox.*

1. Primary Syphilis.—Occurs as a specific ulcer or chancre, the ulcer appearing on the part to which the virus has been directly applied. There are four distinct varieties of sores:—

(1) Indurated, Hunterian, Infecting, or True Chancre.—It is accompanied by the adhesive inflammation, and gives rise to a specific chronic enlargement of the inguinal glands. It is followed by constitutional symptoms. A period of incubation, varying from ten days to six or seven weeks, elapses from the time of inoculation to the appearance of the induration. The sores are characterised by their margins and bases being indurated from the effusion of lymph; while the secretion from them is scanty, and formed of serum, lymph globules, and epithelial débris. This secretion is not inoculable upon the infected party. A mercurial course, similar to that required in constitutional syphilis, is necessary.—See *Syphilization.*

(2) Simple, Soft, Non-indurated Chancre.—Accompanied by

suppurative inflammation. It is a local disease, not followed by secondary symptoms. There are one or more sores, with well-defined edges, looking as if portions of healthy tissue had been punched out. The secretion abundant and purulent; auto-inoculable. If seen within five days from inoculation, effective cauterization will destroy the sore and virus. Best caustics,—nitric acid, acid solution of nitrate of mercury, potassa fusa. In other cases astringent lotions. Ferruginous tonics. Nourishing food.

(3) Phagedænic Chancre.—Accompanied by ulcerative inflammation. The ulcer is small, irritable, ragged, secreting unhealthy pus. The sore has a tendency to spread irregularly. A suppurating bubo forms, which yields inoculable pus. It is not followed by constitutional syphilis, and does not usually require specific remedies. Fomentations and poultices, or soothing lotions. Bark and nitric acid. Ferruginous tonics. Iodide of potassium and sarsaparilla. Nourishing diet, free from stimulants.

(4) Sloughing Chancre, or Gangrenous Phagedæna.—Accompanied by mortification. It does not affect the inguinal glands, is not followed by constitutional infection, and requires only local treatment. Sometimes the disease so severe, that the prepuce and a portion of the glans may be destroyed. In enfeebled prostitutes the whole of the labia and nymphæ may slough away. Fomentations and poultices. Opium. Nourishing food. Stimulants. Confinement to bed.

2. Constitutional Syphilis.—Result of indurated or infecting chancre. Many cases of chronic ill-health are due to it; while it is often the cause of obscure diseases of the vital organs, affections of the bones, rebellious ulcers of the cutaneous or mucous surfaces, troublesome skin diseases, impotence or sterility, abortion, and the death of the fœtus in utero.

Symptoms. In the beginning there is general disturbance of the system. Then fever, mental depression, lassitude, pains in the limbs, and a sallow hue of skin. Shortly, unmistakeable evidence afforded by the production of certain copper-coloured cutaneous diseases; ulcers on the skin; warts, and condylomata or mucous tubercles; tumours of the skin and subcutaneous areolar tissue; alopecia or baldness, and loss of the eyebrows and eyelashes; syphilitic iritis; discoloration and crumbling of nails, or inflammation and ulceration about their roots; superficial ulcerations on the tongue, lips, and pillars of the fauces; ulceration of the larynx; diseases of the periosteum and bones; pain about middle of sternum; and in a few instances, and as late tertiary symptoms, by serpiginous ulceration of the skin, as well as by diseases of the brain, spinal cord, lungs, heart, liver &c.

Treatment. Diet light and nutritious; fish, meat, milk, cream, raw eggs; claret or sherry and water. Warm clothing, flannel, and avoidance of cold and damp. Warm water or vapour baths. Blue pill. Calomel. Compound calomel pill. Mercury and chalk. Inunction with mercurial ointment; sixty or more grains every night. Mercurial vapour baths, 131. Solution of corrosive sublimate, given

for many weeks, 27. Green iodide of mercury, 53. Red iodide of mercury, 54. Donovan's solution, 51. Iodide of potassium, 31. Iodide of sodium, 39. Iodide of iron, 32. Opium. Cod liver oil.—*"Derivative" treatment as practised by Dr. Hjort*:—Application to different parts of body, beginning between the scapulæ, of stibiate plasters (made with one part of powdered tartarated antimony and three of adhesive plaster, melted together,) the size of a visiting card. As soon as good pustules are produced, poultices. At same time, caustics to mucous tubercles, ulcers on fauces &c.—The *"Zittmann" eliminative plan* consists of rest in bed in a warm room: a very moderate diet without stimulants: a purgative every second day: and the production of sweating by copious draughts of compound decoction of sarsaparilla. Subsequently, a course of tonics or of alkaline waters.—See *Syphilization.*

3. Infantile Syphilis.—May be hereditary, or acquired. Infant usually born healthy-looking: but sometimes with its skin of a dull colour, and its features contracted—like a little old man.

Symptoms. Generally, within the month, symptoms of coryza set in; cough, difficulty in sucking, dryness of the lips and mouth, the "snuffles." Voice shrill and hoarse. Superficial ulcerations about mouth and throat. Parts around the mouth, nostrils, buttocks, arms, and flexures of joints become copper-coloured, fissured, and excoriated. Child wastes and gets very weak. Amyloid disease of liver. Indurated nodules in lungs. Syphilitic iritis. Chronic interstitial keratitis. Deafness.—*In children with inherited syphilis*:—A peculiar physiognomy. Tendency to chronic interstitial keratitis. Notching of central upper incisors of permanent teeth (Hutchinson).

Treatment. Mercurial inunction. Mercury and chalk. Iodide of potassium. Chlorate of potash. A healthy wet-nurse? Feeding by hand,—goats', asses', or cow's milk.—See *Syphilization.*

SYPHILIZATION.—A term applied by Auzias Turenne to the condition produced by successive inoculations with syphilitic poison; in which each succeeding chancre becomes less and less, until a time arrives when no ulcer can be produced by insertion of venereal virus. Hence the inference has been drawn that, by prolonged inoculation, a constitutional state is induced in which the system is no longer capable of being affected by syphilis.

To obtain perfect syphilization or immunity, an individual must undergo constitutional syphilis: he must be forced rapidly through this state by repeated inoculations, so that his organization may not be injured.—Sperino inoculates for from 6 to 10 chancres at each sitting; and allows three or four days to elapse between each operation. By continued inoculation the ulcers become less and less until no effect is produced; but the individual is still susceptible, though in a less degree, to another kind of matter, again to a third, and so on until at last no effect is produced by any syphilitic poison. The general health instead of suffering, improves during process of inoculation. Time required to produce immunity varies: in one case it

was obtained after 71 chancres; in most instances upwards of 300 were produced, treatment lasting for nine or twelve or twenty months and more. It may be practised at any age. To obtain a complete cure when patient has previously been mercurialized, the use of iodine has often to be combined with syphilization. Dr. Boeck asserted in 1858, in consequence of results he had obtained from syphilization alone in those who had not been previously mercurialized, that *in no disease has the practitioner a more certain method of cure.* Disadvantages of the method,—its offensive nature, and the length of time necessary for effectually carrying it out: on the other hand, the immunity produced is thought to last for life.

TABES DORSALIS.—From *Tabeo*, to waste away: *dorsum*, the back. Synon. *Phthisis Dorsalis; Myelophthisis.* — A state of atrophy of posterior columns of spinal cord producing palsy.—See *Paralysis.*

TABES MESENTERICA.—From *Tabeo*, to melt away: Μεσεντέριον, the membrane which connects the intestines together,—μέσος, ἔντερον. Synon. *Phthisis Mesaraica; Scrofula Mesenterica; Mesenteric Disease; Abdominal Phthisis.*—A tubercular degeneration of the mesenteric glands. Tubercle effused into the glands, destroying their structure, and obstructing the passage of chyle through the convoluted lacteals traversing them. Particularly affects infants and young children. Often combined with tubercular peritonitis.

Symptoms. More or less constant pain in bowels: sometimes severe, causing legs to be drawn up towards belly. Deep red colour of lips: angles of mouth covered with small ulcers, or lips fissured. Irregular action of bowels: motions generally frequent, watery, unhealthy, and fetid. Abdomen swollen and tense: wasting of other parts of body until extreme emaciation ensues. Great pallor: general debility, weakness rapidly increasing. Recovery occasionally takes place, if disease be checked before functions of glands are much impeded. Symptoms of pulmonary consumption, or of tuberculisation of bronchial glands, or of tubercular meningitis may supervene.

Treatment. Phosphate of iron ("Chemical Food"), 405. Hypophosphite of soda or lime, 419. Ammonia and bark. Cod liver oil, 389. Steel wine. Tincture of perchloride of iron. Ammonio-citrate of iron. Iodide of iron. Quinine. Iodide of ammonium. Iodide of potassium. Solution of chlorinated soda. Peroxide of hydrogen in weak solution. Glycerine. Taraxacum, bicarbonate of potash, and sarsaparilla. Mercury and chalk, with soda and magnesia, 34. Mercury and chalk with powder of ipecacuan and opium. Aromatic powder of chalk and opium. Bismuth. Logwood. Catechu and chalk mixture.—Mild nourishing food. Asses' or goats' milk. Milk and soda water. Milk and lime water. Cream. Raw eggs. Carrageen or Irish moss. Raw minced beef, 2.—Friction of abdomen with soap or opiate liniments. Linseed poultices. Wet compress. Warm, or tepid, salt water baths. Iron, or oak bark, baths, 126. Warm clothing. Flannel bandage round abdomen, night and day. Well-venti-

lated sleeping room. Sea air,—Margate, Broadstairs, Folkestone, 431; Scarborough, 439; Brighton, Hastings, 432; Ventnor, 434.

TEMPERATURE OF BODY.—The normal temperature at unexposed parts of surface is 98.4° Fahr. A persistent rise above 99.5°, and a continued depression below 97.3°, are indicative of disease. The increase above 99° is the best index of amount of fever present.

Observations should be taken at least every morning and evening, always at the same hour, throughout the whole illness. Pulse and respirations to be noted at same time. The bulb of thermometer to be applied to armpit, groin, or belly: to be kept in close contact with skin: to remain in situ for at least three minutes. Were it not for obvious objections, the rectum would be the best situation. A very sensitive curved thermometer, and a straight self-registering instrument, can be obtained in a convenient case from Mr. L. Casella, 23 Hatton Garden, London.

There is a continuous elevation of temperature in all cases of progressive *tuberculosis* from the beginning; the temperature becoming normal when the disease becomes arrested.—A continued elevation occurs in all *acute inflammatory diseases.* In *rheumatism: empyema: suppuration: continued* and *eruptive fevers* &c. During paroxysms of *ague,* from commencement of the rigor to the termination of the sweating stage.—A persistent temperature of 105° is indicative of danger, or of a tendency to some important complication, in *pneumonia, typhoid fever, typhus, small-pox, measles, scarlet fever, erysipelas, acute rheumatism,* and *ichorhæmia.* In any case, a rise above 106° very unfavourable: above 110°, disease in all probability will be fatal. In *typhoid fever,* a sudden fall below normal heat has indicated the occurrence of hæmorrhage from ulcerated Peyer's patches, many hours before blood has appeared in the stools.—During *convalescence from acute disease,* a sudden rise in temperature may be the first indication of a relapse: an abnormal fall (as to 95°) shows a tendency to collapse and indicates the need of hot applications, stimulants, warm soups &c.

TESTICULAR NEURALGIA.—There may be merely increased sensibility of the testicle,—*irritable testis.* Or the pain will be most distressing, assuming the character of true *neuralgia.* No swelling or increase of heat: but only intolerance of least pressure, and retraction of gland close to the groin during the paroxysms. Either irritable testicle or neuralgia may arise from onanism, or excessive intercourse; disease at prostatic part of urethra; as a sequel of testitis; from gout; dyspepsia, with very acid urine; a calculus in kidney or ureter; varicocele &c. The *remedies* are:—Belladonna, aconite, and opium locally applied: cold lotions, or even ice bag: subcutaneous injections of morphia into scrotum. Quinine; iron; arsenic; valerianate of ammonia or zinc. When pain has been very acute, patients have demanded castration: compliance with such a wish, perfectly unjustifiable, save in very exceptional instances. Were castration resorted to, the pain would return in the cord, unless due to actual disease of the gland.

TESTICULAR TUMOURS.—The testicle may be the seat of a fibrous transformation. Of fibro-plastic or myeloid growths; or of enchondromatous (cartilaginous) tumours. Non-malignant cysts of different kinds may form, by dilatation of the seminiferous tubules (*hydatid disease* of Sir Astley Cooper; *cystic sarcoma* of recent writers). Very rarely, malignant cystic disease has occurred. Scirrhous is less frequent than medullary cancer. Young children are occasionally affected with scirrhus, more often with encephaloid. Extirpation is the only remedy in all cases, where treatment is really necessary. In cystic sarcoma, a perfect cure may be hoped for by removal: in cases of carcinoma a recurrence is very much to be feared.

TESTITIS.—From *Testis*, a witness,—because the testicle is a proof of virility; terminal *-itis*.—Inflammation of the testicle may be acute or chronic; or it may be specific,—syphilitic, or tubercular.

1. Acute Testitis.—Synon. *Hernia Humoralis; Orchitis; Orchiocele; Swelled Testicle.*—Generally due to extension of gonorrhœal inflammation from urethra; such inflammation having been often aggravated by strong injections, use of alcoholic drinks, active exercise, neglecting to wear a suspensory bandage &c. The central portion or body of the gland may be affected; or the epididymis and tunica vaginalis may be attacked (*epididymitis*); or all these parts may suffer.

Symptoms. Pain and feeling of weight in cord and testicle. Uneasiness about the loin, groin, and upper part of thigh. Frequent micturition. Diminution of urethral discharge. Swelling of testicle, from effusion of serum and lymph into tunica vaginalis: scrotum firm and tense: swelling of cord. Great tenderness; pressure aggravates the pain. Febrile disturbance: nausea and vomiting: constipation. Abscess rarely forms. Very seldom the inflammation has ended in gangrene.

Treatment. Prior to setting in of swelling the disease may perhaps be checked by antimonial emetics, 231. Alkaline aperients,—Sulphate of soda and taraxacum, 144. Sulphate and carbonate of magnesia with colchicum, 141. Iodide of potassium, 31. Aconite, 330, 331. Opium, in doses sufficient to relieve pain. Rest in bed: scrotum to be supported by small pillows. Hot fomentations, with application of extracts of belladonna and poppies, 297. Pressure by means of strapping, or of strips of mercurial plaster, methodically applied: seldom to be used till towards the end of acute stage.

Puncture with a thin sharp knife into body of testis, so that by division of tunica albuginea the pressure on lobules and convoluted tubes may be removed: the incision allows a quantity of serum and a few drachms of blood to escape: there is immediate relief, the process seldom requiring repetition (Henry Smith). Puncture of the testicle, followed as soon as bleeding has ceased by tight compression with strapping: administration of one grain of opium (Spencer Watson).

2. Chronic Testitis.—Synon. *Sarcocele*, from Σὰρξ, flesh; κήλε, a swelling.—Is either the sequel of an acute attack; or the inflammation may be subacute or chronic from commencement. May be due to stricture of urethra; to gleet; or to a syphilitic taint.

Symptoms. Morbid action usually begins in epididymis, and extends to body of testicle. There is swelling, hardness, and tenderness on pressure: a sense of weight. Sometimes, effusion of serum into tunica vaginalis—hydro-sarcocele. When due to constitutional syphilis (syphilitic sarcocele) there are other manifestations of this state: pustular or scaly skin eruptions, rheumatic pains with nocturnal exacerbations, ulcers about tongue or throat, derangement of general health, and sometimes iritis.

Treatment. Removal of cause: examination of urethra for stricture &c. Avoidance of active exercise. Use of suspensory bandage. Pressure, firmly and evenly applied, by encircling the gland with strips of strapping or of mercurial plaster. Iodine liniment diluted. Red iodide of mercury ointment diluted, 302. Iodide of potassium, 31. Mercurial vapour baths, 131. Red iodide of mercury, 54. Corrosive sublimate with sarsaparilla, 27.

3. Abscess and Fungus of Testicle.—May result from acute or chronic inflammation. When fluctuation can be detected, and the skin is adherent, a puncture should be made; pressure being applied after evacuation of the pus.

Sometimes, when matter forms, the tunica albuginea gets perforated; the integument thins and gives way; and through the opening a protrusion of fibro-plastic matter with some of the tubular structure takes place. There is but little pain. The fungus slowly increases; unless it has been returned and kept in place by strapping, after separating by dissection the thickened integument adherent to the margins of the wound, and then carefully bringing the edges together. Where the protruded part has become disorganized, it must be sliced off,—a proceeding equivalent to partial castration.

4. Scrofulous Testicle.—Slow and subacute inflammation, with deposit of tubercular matter between the tubuli seminiferi, or into the epididymis.

Symptoms. Formation gradually of a nodular swelling, without pain. Tumour seldom attains much size. Softening and suppuration; the swelling bursts, pus and tubercular matter coming away; sinuses form, and communicate with similar enlargements. The sores may put on a healthy character, or there may be a protrusion of tubular structure,—fungus of testicle. Tubercular disease of lungs often also present.

Treatment. Nourishing food: stimulants, milk, cream, raw eggs, beef solution, 2. Sea air. Cod liver oil. Ammonia and bark. Hypophosphites of soda or lime, and bark, 419. After evacuation of pus, pressure by strapping. Lotions of sulphate of zinc, 264; or iodine, 269. Where constitutional disturbance is great, removal of source of irritation by castration may be required.

TETANUS.—From Τείνω, to bend or strain. Synon. *Rigor Nervorum; Spasm with Rigidity.*—A disease, the chief feature of which is long-continued contraction or spasm of a certain number of the voluntary muscles. Rigidity of muscles continuous, and hence spoken of as *tonic spasm* or *spastic contraction;* in contradistinction to *clonic spasms* of convulsions, where there are alternate contractions and relaxations.—Cases of *idiopathic,* more hopeful than of *traumatic,* tetanus. Symptoms very similar to those produced by poisonous dose of strychnia.

Symptoms. Usually set in suddenly: muscles of jaws and throat first affected. Patient complains that he has taken cold, and as if he had got a sore throat and stiff neck; but stiffness and uneasiness soon increase, and extend to the root of the tongue causing difficulty in swallowing. Temporal and masseter muscles gradually get involved; *lock-jaw* or *trismus* (Τρίζω, to gnash with the teeth) occurs. When disease proceeds, remaining muscles of face, trunk, and extremities become implicated. Spasms never entirely cease, except in some cases during sleep: aggravated every quarter of an hour or so, increased cramp lasting for a few minutes and then partially subsiding.—Where strong muscles of back are most affected, they bend body into shape of an arch, so that patient rests upon head and heels, a condition known as *opisthotonos* (Οπισθε, backwards; τείνω, to bend).—When body is bent forwards by strong contraction of the muscles of neck and abdomen, affection termed *emprosthotonos* (Εμπροσθεν, forwards, and τείνω).—If muscles are affected laterally, so that body is curved sideways, the disease has been designated *pleurosthotonos* (Πλευροθεν, from the side, and τείνω), or *tetanus lateralis.*

Frightful suffering caused by tetanic spasms. Face pale; brows contracted; skin covering forehead corrugated; eyes fixed and prominent—sometimes suffused with tears; nostrils dilated; corners of mouth drawn back, teeth exposed, and features fixed in a grin—*risus sardonicus.* Respirations performed with difficulty and anguish; severe pain at sternum; great thirst, but agony increased by attempts at deglutition; pulse feeble and frequent; skin covered with perspiration; patient cannot sleep, or if he dozes it is only for a few minutes at a time. With all this suffering, intellect remains clear and unaffected. Death usually occurs between third and fifth days; partly from suffocation, partly from exhaustion.

Treatment. Empirical and often useless. Full doses of calomel and jalap, until bowels are freely acted on. Inhalation of chloroform, more or less insensibility being kept up for many hours. Belladonna locally, and internally. Quinine in full doses, with or without belladonna. Subcutaneous injections of liquor atropiæ, 314. Subcutaneous injections of solution of active principle of woorara—the alkaloid curarina. Nicotine (one or two drops for a dose). Powder of Old Calabar bean (one grain to six for a dose). Aconite. Conium. Sulphite of soda or magnesia, if disease be thought due to absorption of morbid matters, 48. Prolonged application of ice to spine.

Opium objectionable: produces a state of congestion and polar excitement of spinal cord. Bloodletting; blisters; cold, hot, and

vapour baths; mercury; antimony; colchicum; large doses of assafœtida; turpentine; digitalis; glonoin; musk; iron; hydrocyanic acid; Indian hemp, — all have been fruitlessly employed. — See *Trismus Nascentium.*

THROMBOSIS.—By this term (from *θρομβος*, a clot of blood) is generally understood the partial or complete closure of a vessel, by a morbid product developed at the site of the obstruction. The coagulum, which is usually fibrinous, is known as an *autochthonous clot* or *thrombus.*

Thrombi mostly met with in diseases attended with exhaustion. Particularly in croup, diphtheria, scarlatina, endocarditis, pneumonia, phthisis, typhus, purpura, erysipelas, hæmorrhage &c. Their formation favoured by condition of blood during pregnancy and puerperal state.

Treatment. Variable according to the symptoms. Indications generally are to support the vital powers and allay irritability. Brandy. Rum. Essence of beef, 2, 3. Milk. Brandy and eggs, 17. Ammonia, 361, 371. Ether, 367. Quinine, 379. Bark. Opium, 316, 318, 340. Sulphite of magnesia, 48. Pure air. Perfect rest.

THRUSH.—A disease of the mouth occurring in infants. Synon. *Aphtha Infantum; Febris Aphthosa; Vesiculæ Gingivarum; Milk Thrush.*—See *Aphthæ of Mouth.*

TIC DOULOUREUX.—Severe attacks of neuralgic pain in nerves of face. Infra-orbital branches of fifth pair, most frequent seat. Synon. *Neuralgia Faciei; Painful Tic.*—See *Neuralgia.*

TINEA.—From *Tinea*, any gnawing or destructive worm.—Applied generally to those cutaneous diseases which are due to presence of epiphytes or parasitic plants. All are contagious. Five varieties :—

1. Tinea Tonsurans.—From *Tondeo*, to shave,—because of the brittleness of the affected hairs. Synon. *Porrigo Scutulata; Scalled Head; Herpes Tonsurans; Herpes Circinatus; Trichosis Furfuracea; Ringworm.*—A chronic contagious disease, known by decolorization and brittleness of affected hairs, scaly eruption, and roundness of diseased patches. Most common on the scalp. The parasite is the *Tricophyton Tonsurans;* the sporules and mycelium of which infiltrate the texture of each hair, while they also spread among the epithelial scales.

Treatment. See *Tinea Sycosis.*

2. Tinea Favosa.—From *Favus*, a honeycomb. Synon. *Favus; Tinea Lupinosa; Porrigo Favosa; Honeycomb Ringworm.*—Very rare. Most commonly affects the scalp, in form of small cup-shaped, dry, yellow crusts; each crust containing a hair in its centre, and resembling a piece of honeycomb. Attended with severe itching: hairs become brittle and fall out: crusts have a mouldy offensive

odour, and are often surrounded with lice. The cryptogamic parasitic cause is the *Achorion Schönleinii.*

Treatment. See *Tinea Sycosis.*

3. Tinea Decalvans.—From *Decalvo,* to make bald. Synon. *Porrigo Decalvans; Alopecia Circumscripta; Alopecia Areata.*—The hair falls off one or more circular or oval spots; leaving perfectly smooth bald patches. The parasitic fungus is the *Microsporon Audouini.*

Treatment. See *Tinea Sycosis.*

4. Tinea Sycosis.—From Συκόμαι, to become like a fig. Synon. *Roseola Ficosa; Sycosis; Mentagra; Chinwhelk; Barber's Itch.*—Characterised by inflammation of the hair follicles; causing successive eruptions of small acuminated pustules, which have been said to have a granulated appearance resembling the substance of a fig. Occurs most frequently on chin, and other parts covered by the beard. The parasite is the *Microsporon Mentagrophytes.*

Treatment. Attention to cleanliness. Removal of hairs with scissors, or extraction by forceps—epilation. Separation of all scabs or incrustations by poultices and simple ointments or oil. Improvement of general health by generous diet; cod liver oil; bark, quinine, steel. Destruction of parasitic plant by sulphurous acid lotion, 272; creasote or carbolic acid, 270; corrosive sublimate, 271; a mixture of equal parts of calomel, creasote, and sulphur ointment; diluted citrine ointment, 305; ammoniated mercury and sulphur ointment, 300; or iodide of sulphur ointment, 310. In ringworm especially, painting with strong acetic acid; or glacial acetic acid, washing the part directly afterwards. In tinea decalvans, frequent painting with liniment of cantharides.

5. Tinea Versicolor.—From *Versicolor* (*verso* and *color*), that changes its colour. Synon. *Chloasma; Pityriasis Versicolor; Macula Hepatica; Liver Spot.*—Makes its appearance generally on front of chest or abdomen, in form of yellowish patches covered with small branny scales. Caused by a cryptogamic plant,—the *Microsporon Furfur.*

Treatment. Sulphurous acid lotion, 272. Corrosive sublimate liniment, 271. Thorough cleanliness. Flannel vests to be soaked in boiling water. In obstinate cases,—arsenic, 52.

TONGUE DISEASES.—The tongue is exposed to many sources of disease and injury. A highly sensitive organ: hence, slight diseases of its mucous membrane, or of its muscular fibres, are commonly very painful.

1. Glossitis.—From Γλῶσσα, the tongue; terminal *-itis.* Synon. *Angina Lingualis; Inflammatio Linguæ.*—Inflammation of the tongue a rare affection, now that mercury is seldom used so as to induce salivation. Generally an accompaniment of other diseases, rather than an idiopathic affection.

Symptoms. Fever. Constitutional disturbance. Debility. Anxiety.

Pain, heat, and salivation. Colour deepened. Swelling sometimes so great that cavity of mouth cannot contain the organ, and it projects beyond the teeth. Swelling may set in rapidly: often produces urgent dyspnœa. Sometimes ends in suppuration.

Treatment. Castor oil, 164. Castor oil and turpentine enema, 190. Croton oil enema, 191. Chlorate of potash, 61. Application of ice. Pencilling with nitrate of silver. Free incisions along upper surface to relieve congestion, or evacuate pus. Tracheotomy, if suffocation threaten.

2. Ulcers of Tongue.—Several varieties: most forms very painful and difficult to heal.

(1) Whole of upper part of tongue sometimes superficially ulcerated. Raw surface very tender. Severe, long-continued disorders of digestive organs are chief source of this form. May occur in any disease attended with great exhaustion. To be relieved by gargles of borax, 250. Nourishing food, such as can be digested. Tonics and stimulants. Pepsine, 420.—(2) Ulcers the result of simple inflammation are usually small, superficial, without definite shape, very sensitive. Seated about tip, or near frænum, rather than at sides. Mild diet. Simple aperients, 146, 155, 161, 169. Compound powder of rhubarb. Borax gargles, 250. Application of sulphate of copper. Extraction of carious stumps. Removal of tartar from teeth.—(3) Ulcers from ptyalism easily distinguished by accompanying affections of gums, and fetor of breath. Most readily healed by chlorate of potash, 61. Sulphate of magnesia, 141. Sulphate of soda, 144, 148. Chlorinated soda gargle, 254. Alum and myrrh gargle, 252. Tannin gargle, 251.—(4) Superficial syphilitic ulcers generally attended with similar disease of lips, or other secondary symptoms. Appear at sides of tongue: very sore and intractable. Mercurial vapour bath, 131. Mercurial inunction. Green iodide of mercury and conium, 53. Chlorate of potash, 61. Iodide of potassium, 31. Application of nitrate of silver, or sulphate of copper.—(5) Deep syphilitic ulcers generally commence as inelastic indurations, which slough in centre. Sores become deep and excavated: edges ragged and sloughy, or thickened and hard. Most common on upper and back part of tongue. Generally accompanied by other tertiary symptoms. Iodide of potassium, 31. Corrosive sublimate gargle, 256. Nitric acid gargle.—(6) Remaining forms of ulceration are either strumous, tuberculous, or cancerous. Occur with other symptoms of these diseases. Require the treatment necessary for constitutional state. Cod liver oil generally useful.

3. Cancer of Tongue.—May be of Epithelial form: or a firm Scirrhous tumour: or Medullary. Of whichever kind, there is a tendency to speedy ulceration. A foul sloughy sore forms, with ragged everted edges and an indurated base.

Symptoms. Severe pain. Profuse salivation. Cancerous cachexia. —Difficult articulation and deglutition. Attacks of hæmorrhage. Great swelling of whole organ. Sometimes sloughing. Cancerous deposits in sublingual and submaxillary glands: in surrounding

tissues. Mouth may get almost filled with an extensive ulcerated fungus, threatening suffocation. Disease runs a rapid course. Death, generally from exhaustion.

Treatment. Morphia, 315, 343. Opium and belladonna, 344. Subcutaneous injection of morphia, atropine, or aconitine, 314. Gargle of citric acid (gr. 10 to fl. oz. j). Milk; cream; raw eggs. Essence of beef, 3.—To check hæmorrhage, application of powdered matico leaf; ice; lemon juice; saturated solution of perchloride of iron.—Removal of tongue, by knife, ligature, or écraseur. To diminish sensibility and salivation, division of gustatory nerve. Division of nerve, with ligature of corresponding lingual artery.

4. Cracked Tongue, Tumours, &c.—(1) *Cracked tongue* very troublesome. The clefts or fissures form an irregular series of grooves: they may be a couple of lines in depth. Render eating and speaking painful. Where this condition cannot be accounted for by any specific state of system, or by any derangement of alimentary organs, it may often be cured by application of borax and glycerine, 268. Iodide of potassium, with steel or sarsaparilla, 31, 32.—(2) Surface of tongue occasionally presents *patches of baldness, i.e.*, one or more smooth, oval, glossy patches. No ulceration or fissure. Often coexists with psoriasis palmaris: may be indicative of a syphilitic taint. Corrosive sublimate, 27. Red iodide of mercury, 54. Donovan's triple solution, 51.—(3) *Warts* and *condylomata* not uncommon diseases of mucous covering of tongue. The former require excision: the latter, anti-syphilitic remedies.—*Papillary patches* consist of large tough, brawny, coarsely papillary, and perhaps fissured spots of thickened mucous and submucous tissue. They cause an unpleasant feeling; thickness of speech; and have been mistaken for cancer. Iodide of potassium, 31. Conium, 336.—(4) *Hypertrophy*, a rare affection of tongue. Sometimes congenital. Enlargement generally becomes so great that mouth is too small; consequently, a large portion of the organ is constantly protruded. In some instances, prolapsed part has reached below the chin. Removal may be accomplished by knife, ligature, or écraseur.—(5) When frænum linguæ is shorter than usual, the individual is said to be *tongue-tied*. If movements of tongue be interfered with, the frænum is to be divided; the points of scissors being directed downwards to avoid ranine arteries.—(6) *Encysted* or *fatty tumours* form in tongue, or beneath it. May require extirpation.—*Firm tumours*, made up of fibrous and areolar tissue, sometimes grow from tongue. When pediculated they may be snipped off: if any artery be felt in stalk, écraseur to be used.—(7) *Ranula* (from *Rana*, a frog; because the voice is said to be croaking like a frog's) is a semi-transparent fluctuating swelling, perhaps as large as a walnut, situated under the tongue. It consists of a dilatation of Wharton's duct of submaxillary gland. A seton should be passed through cyst; or a portion of anterior wall excised.

TONSILLITIS.—From *Tonsilla*, the tonsil; terminal *-itis*. Synon. *Cynanche Tonsillaris; Amygdalitis; Inflammatio Tonsillarum;*

Quinsy; Inflammatory Sore Throat.—Inflammation of one or both tonsils, with fever.

1. Acute Tonsillitis.—Generally caused by cold and some peculiar condition of system. Liability to the inflammation increased, during youth, by repetitions of attacks.

Symptoms. Chilliness or rigors. Smart fever. Redness and swelling of fauces and tonsils. Pain and difficulty of deglutition. Return of liquids through nostrils, on attempting to swallow. Pain along course of Eustachian tube.—May end in resolution in about four days; often goes on to suppuration.

Treatment. Rhubarb and magnesia, 165. Citrate of magnesia, 169. Solution of acetate, or citrate, of ammonia, 348, 349, 362. Carbonate of ammonia, 361, 364. Ammonia and bark, 371. Quinine and nitric acid, 379. Guaiacum. Inhalation of steam of poppy water. Opiate gargles, 253. Linseed or hemlock poultices. Belladonna and opium to outside of throat, 297.—If an abscess form, it is to be opened cautiously with a sharp-pointed bistoury, the cutting edge being directed towards mesial line of body: in event of hæmorrhage, a strong solution of perchloride of iron to be freely applied.

2. Chronic Enlargement and Induration.—May result from acute tonsillitis, or may come on gradually in strumous children and weakly young women. Enlargement often so great that fauces appear to be almost blocked up by meeting of the glands. Thickness of speech. More or less deafness. Difficulty in swallowing. Impediment to full and deep inspirations.—Iodide of ammonium, 38. Cod liver oil. These remedies failing,—portions of the glands to be excised. Sometimes, entire gland can be shelled out with finger. Applications of nitrate of silver, iodine, or potassa fusa have been recommended.

Cancer of tonsil may occur as a secondary affection. As a primary disease it is almost unknown. Where suffocation threatens, the prominent part of the gland should be excised if the whole cannot be shelled out.

TOOTHACHE. — Synon. *Odontalgia; Odontodynia; Dentium Dolor; Gomphiasis.*—Teeth divided into incisors, canines, bicuspids or premolars, and molars. A representation of the number of different kinds of teeth in both jaws by means of symbols, constitutes a "dental formula." Number and nature of permanent teeth of man are thus expressed in convenient signs (Owen):—

$$i.\ \frac{2-2}{2-2};\ c.\ \frac{1-1}{1-1};\ p.\ \frac{2-2}{2-2};\ m.\ \frac{3-3}{3-3}=32.$$

The formula for deciduous, temporary, or milk teeth is

$$d\,i.\ \frac{2-2}{2-2};\ d\,c.\ \frac{1-1}{1-1};\ d\,m.\ \frac{2-2}{2-2}=20.$$

1. Toothache from Caries.—Synon. *Odontalgia Cariosa; Dental Gangrene.*—Softening and decay of dentine, causing great pain when central cavity of tooth is reached. May be due to original mal-

formation of enamel and bone, to pregnancy, to use of mercury, to depraved secretions with dyspepsia &c.

Treatment. Removal by scraping of decayed portion, and then stopping with gold, gutta percha, or amalgam of silver and mercury. Temporary stoppings with cotton wool dipped in mastic varnish; cotton wool with creasote &c. Extraction. Troublesome hæmorrhage after extraction may set in:—Remove clot from cavity, and sponge the latter dry with lint pushed into it; then plug with cotton wool soaked in a saturated solution of perchloride of iron, or of tannic acid, or of matico; and finally add a small compress of lint so as to keep up pressure when the jaws are closed. In caries of deciduous teeth extraction unnecessary, unless there be pain or frequent gum-boils.

2. Toothache from Inflammation of Pulp.—Synon. *Odontitis; Odontophlegmone.*—When the pulp has been bared, inflammation may be set up by irritation of food, cold, hot or cold fluids &c.

Treatment. Aperients, 141, 144, 148, 153. Washing mouth with strong solution of bicarbonate of soda in hot water. Stopping tooth with cotton wool saturated with creasote, or chloroform, or oil of cloves, or tincture of aconite, or cajuput oil, or camphor in turpentine, or tannic acid in ether. A leech to gum. Chewing horseradish or ginger. Chewing pellitory (pyrethrum). Ginger poultice to face. Extraction. Drilling into pulp cavity (rhizodontrypy) after stopping.

3. Toothache from Necrosis of Fangs.—The crown and cervix may be healthy, and yet the fangs necrosed. The fangs of stumps get affected in same way. Abscess forms again and again. Instead of necrosis there may be thickening of fang from bony deposit. Even exposure of a fang from recession of the gum causes often severe pain.

Treatment. Extraction. Sensibility of a bared fang may be permanently relieved by painting with carbolic acid, or nitrate of silver.

4. Toothache from Neuralgia.—Synon. *Odontalgia Nervosa; Neuralgia Dentalis.*—Not uncommon in early months of pregnancy: in cases of disordered health &c. Rheumatic toothache of same kind.

Treatment. Antacid aperients. Quinine. Ammoniated tincture of valerian and bark. Ammonia and sumbul. Colchicum. Aconite. Iodide of potassium. A leech to tender gum, or scarification. Removal of accumulated tartar (salivary salts—chiefly phosphate of lime).

TORTICOLLIS.—From *Torqueo,* to turn aside; *collum,* the neck. Synon. *Collum Obstipum; Cephaloloxia; Rheumatismus Cervicis; Stiff-Neck.*—See *Wry-neck.*

TOXÆMIA.—From Τοξικὸν, a poison; αἷμα, blood. Synon. *Toxicohæmia; Toxicæmia.*—A contaminated state of blood, from absorption of some deleterious matter,—as syphilitic virus, poison of small pox, typhus &c.

TRACHEITIS.—From *Trachea,* the wind-pipe; terminal *-itis.* Inflammation of the trachea.—See *Croup.*

TRICHIASIS.—From Θρίξ, τριχὸς, the hair. Synon. *Morbus Pilaris; Trichiasis Ciliorum; Trichosis; Trichia.*—An irregular direction of one or more of the eyelashes. The cilia present their points towards the globe of the eye, producing chronic inflammation of the conjunctiva.

Treatment. Misdirected hairs to be drawn out singly, with broad-pointed and well-grooved forceps. Hair follicle to be destroyed by nitrate of silver; frequent dabbing with spirits of wine.

TRICHINIASIS.—From Θρίξ, τριχὸς, a hair,—owing to the hair-like form of the entozoon producing this disease. Synon. *Trichina Disease; Trichinosis; Flesh-Worm Disease.*—A peculiar febrile helminthic affection, attended with symptoms somewhat resembling those of typhoid fever.—Trichinæ may exist free in muscular tissue, or in more or less calcified cysts about $\frac{1}{50}$ of an inch long and $\frac{1}{100}$ of an inch broad. Young trichina, extracted from cyst, is disposed in two or two and a half coils: straightened out, it measures $\frac{1}{30}$ of an inch in length, and $\frac{1}{700}$ of an inch in diameter. Fully developed and sexually-mature male trichina measures $\frac{1}{18}$ of an inch: female, $\frac{1}{8}$ of an inch.

Symptoms. Vary in severity according as few or many worms have been swallowed, as well as in proportion to number of the progeny and extent of their migrations. Usually, loss of appetite, general malaise; followed by nausea, prostration, diarrhœa, and painful stiffness with swelling of muscles of arms and legs. Pain due to immigration of young trichinæ into the muscles. High fever: œdematous swelling about face and eyelids. Frequent pulse. Copious offensive sweats. Diminished secretion of urine: excess of urates and uric acid, but never any albumen or sugar. Stiffness of limbs increases: muscles become painful, tender to touch, and greatly swollen. Movements of intercostal muscles in respiration attended with pain, preventing sleep. Hiccup, if diaphragm be invaded. Hoarseness and loss of voice, where laryngeal muscles get inhabited.—When a large quantity of trichinous meat has been eaten, patient may lie almost paralysed in state of great exhaustion. Facial œdema continues a week or ten days: its disappearance followed by swelling of feet and legs and trunk.—About commencement of fourth week, patient's condition very unfavourable. Pulse and respirations frequent: tongue dry and red: pain severe: sweating profuse: mouth can scarcely be opened: no sleep can be obtained: præcordial anxiety and delirium: death preceded by profound exhaustion. Complications sometimes prove fatal earlier,—pneumonia, pleurisy, peritonitis, dropsy, diarrhœa &c. In favourable cases, symptoms gradually abate; return of appetite and power of digestion, diminution of muscular pain and swelling, lessening of anæmia: parasites have become encysted in the muscles.

Treatment. Very unsatisfactory. In earliest stage, emetics and purgatives. Calomel and jalap, 140. Calomel, as a purgative, in 20 gr. doses. Prussic acid, or laurel water. Quinine. Picrate of potash? Benzole? Oil of turpentine? Santonin? Tannin? Salts of copper? For relief of sleeplessness and sweating, wet-sheet packing, 136.

Opium and digitalis, injurious.—Perfect quiet. Broths, gruel, milk, ice, soda water, brandy and egg mixture (17), restorative soup (2). Subsequently, during convalescence, large quantities of nourishing food, wine &c. Ferruginous tonics.

TRISMUS NASCENTIUM.—From Τρίζω, to gnash with the teeth: *Nascor*, to be born. Popularly known as *Nine-day fits.*—A peculiar form of Tetanus, which occurs in infants about second week after birth, and is very fatal. Rare in this country. Eighty years ago, when Dublin Lying-in Hospital was badly ventilated, it proved one of the most prominent causes of infantile mortality in that institution. Still common in West Indies, where it sometimes seems to rage as an epidemic.

When prevalent, great care necessary to guard new-born child from cold or foul air, improper feeding, imperfect cleansing, or from retention of meconium. Remains of umbilical cord to be properly managed, and not left to charge of an ignorant nurse. In dividing funis at birth, not more than two inches to be left attached to umbilicus. As curative remedies, warm baths, purgatives, and friction of spine with belladonna are the only measures likely to be serviceable.

TUBERCULOSIS.—From *Tuberculum*, dim. of *Tuber*, a knob or excrescence.—The term tuberculosis designates an idiopathic blood disease, which manifests itself by producing conditions commonly known as scrofula, pulmonary consumption, tubercular hydrocephalus, tubercular peritonitis, and tabes mesenterica. Precise nature of change in blood, unknown; probably the aqueous part is increased in proportion to the solids, while the red corpuscles are especially diminished.

Tubercle, or tuberculous matter, is the specific product of this disease. It is deposited in a fluid state from the capillaries, just as lymph is; the deposit coagulating, and forming a foreign body. Hence it exists in insoluble masses, or is infiltrated into the tissues of many different organs; being most frequently found in the lungs, constituting pulmonary tuberculosis, or tubercular disease of the lungs, or phthisis, or consumption—these terms being synonymous.

Symptoms. Dyspepsia, with difficulty in assimilating sugar and fat. Acid eructations, heartburn, flatulence. Paleness and sense of coldness of the body, although the thermometer shows an elevation of temperature. Tumidity of the abdomen. Intellectual system well developed. Sanguine temperament. Puffiness of the face, with swelling of lips and nostrils. Purulent discharges from the ear. Vesicular eruptions about the head. Enlargement of tonsils, and glands of the neck. Disagreeable exhalations from skin, especially from feet and axillæ. Feebleness with rapidity of pulse. General debility. Progressive loss of weight. Susceptibility to attacks of simple fever. Signs of disease in the organ invaded.

May set in at any period of life. Liability to it greatest between three and fifteen, and between eighteen and forty.

Its development favoured by all conditions which render the blood

unhealthy. Malformations of chest. Defective structure of lungs. Diseased nutrition. Sexual excesses.

Treatment. *To prevent its transmission:*—Well-assorted marriages to be obtained; great care to be taken of maternal health during pregnancy; attention to infant's food and clothing, as well as to the air it breathes. A strumous mother not to be allowed to suckle her child. Avoidance of ill-ventilated, badly drained, or damp houses.

Curative treatment:—Improvement of the faulty nutrition. The formation of healthy blood to be promoted. Special attention to diet, dress, exercise, repose, sexual intercourse, air to be breathed, functions of skin, and powers of the digestive organs.—See *Hydrocephalus; Phthisis; Tabes Mesenterica* &c.

TYMPANITES.—From *Tympanum*, a tambourine or drum; because the belly, if struck, sounds like a drum when the bowels are distended with air. Synon. *Pneumatosis Abdominis; Aërosis; Meteorism; Wind Dropsy.*—See *Flatulence.*

TYPHLITIS.—From Τυφλὸς, blind; terminal *-itis.* Synon. *Tuphloenteritis.* Inflammation of the Cæcum.—See *Cæcitis.*

TYPHOID FEVER.—From Τύφος, stupor; εἶδος, appearance. Literally, "like Typhus."—Formerly described as *Abdominal Typhus; Febris Putrida; Gastro-bilious Fever; Febris Gastrica; Febris Mesenterica Maligna;* and *Night-soil Fever.* In the present day, its synonyms are,—*Enteric Fever; Pythogenic Fever;* and *Typhia.*—May be defined as an endemic, slightly infectious, contagious fever; most prevalent in autumn: generated by putrefying animal matter. Effluvia from drains, or contamination of drinking water by decomposing sewage making its way into the wells, are frequent sources of this disorder.—Attacks rich and poor indiscriminately; but is particularly a disease of early youth and adolescence.—It frequently has a duration of 30 days. In many cases it terminates on 21st or 28th day; and occasionally is followed by a relapse.

Symptoms. Sometimes a period of incubation, varying from 10 to 14 days: in other cases, the symptoms come on immediately after exposure to the poison.—The disorder sets in slowly and insidiously, with languor. In a day or two, there are chills, headache, thirst, pains in limbs, weakness, with a tendency to diarrhœa and sickness. Restlessness; face languid and pale, or marked with a circumscribed flush on each cheek; urine diminished in quantity, urea increased, chlorides absent; pulse rises to 120 or higher; breath offensive, often ammoniacal; tongue dry and brown, or red and glazed.—At commencement of second week, or a day or two earlier, the typhoid rash appears; rose-colored dots on chest or abdomen; few in number; circular; disappearing on pressure; and fading away, to be replaced by a fresh crop. In 10 or 12 per cent. no rash.—After the middle of the second week,—somnolence, delirium, tinnitus aurium or deafness, prostration, bed-sores &c. Tympanites; gurgling in right iliac fossa on pressure; diarrhœa. Attacks of hæmorrhage from the ulcerated

patches in the ileum and cæcum. Stools alkaline and of a putrid character. Perforation of the bowel, with fatal peritonitis, to be feared. Congestion of kidneys. Cerebral or pulmonary complications.

Mortality about 1 in 5 or 6. More fatal to the rich than the poor. Death usually due to exhaustion, uræmia, peritonitis, pneumonia, or erysipelas. Two lesions invariably present,—alterations in the agminated glands or Peyer's patches, and in the corresponding glands of the mesentery. Frequently, the patches have undergone ulceration.

Treatment. *Prophylactic:*—Good drainage. No old cesspool to be opened in an inhabited house. Patient's excreta to be passed into a bed pan containing Condy's fluid, 74.

Curative:—In most respects the same as for typhus. There are two or three exceptional points:—Avoidance of aperients. Astringents with opium to relieve intestinal irritation and diarrhœa, 96, 97, 100, 105, 106, 107, or 113. Cold over the abdomen when there is intestinal hæmorrhage; gallic acid, 103.

Great care during convalescence, lest the cicatrizing ulcers in the ileum be irritated. Quinine. Liquid extract of yellow cinchona. Compound tincture of cinchona. Return to a generous diet to be very gradual: no solid food until all symptoms have vanished.

TYPHUS FEVER.—From Τύφος, smoke; an expression employed by Hippocrates to denote a lethargic disease, in which the patient is suddenly deprived of his senses, as if thunderstruck.—Prior to 1759, typhus was known as *Putrid, Pestilential, Malignant, Jail, Ship,* or *Hospital Fever.*—May be defined as,—a contagious infectious fever. Often prevails epidemically during seasons of general scarcity. The accompaniment of destitution. Generated in over-crowded and ill-ventilated dwellings.—Duration from 14 to 21 days.

Symptoms. A period of incubation, varying from 1 or 2 to 12 days. Then, dry and heated skin; heavy dull look; thirst; constipation; stupor; prostration &c. Towards evening, irritability and restlessness; sleepless nights. The typhus rash rarely appears before 7th day; consists of irregular spots, of a dusky or mulberry hue, disappearing on pressure, and feeling as if raised above the skin; remains permanent until end of fever; may be accompanied by, or become converted into petechiæ; sometimes altogether absent.

During first week, deafness or noises in the ears; injected conjunctivæ; often constipation, never diarrhœa; brown dry tongue. Wakefulness; or patient sleeps, and afterwards believes he has not done so. Urine diminished in quantity; urea increased; chlorides absent, or nearly so; sometimes albuminuria; occasionally complete suppression, with uræmia. In second week,—Great prostration. Muscular twitchings. Delirium. The danger may be increased by the supervention of acute bronchitis, pleurisy, or pneumonia. Approach of convalescence gradual; usually begins on 13th or 14th day. Sometimes a critical sleep, or sweat, or attack of diarrhœa, or greatly increased flow of urine.

When fatal, death usually occurs between 12th and 20th days. Mortality about 1 in every 5 attacked. The greater the age, the greater the danger.

Treatment. *Prophylactic:*—The poor to be supplied with wholesome food, and properly ventilated dwellings. Over-crowding to be prevented in sleeping-rooms, and lodging houses. Every common lodging house, hospital, workhouse &c. to be thoroughly cleansed and lime-washed, once a year or oftener.—Clothes and bedding of typhus patients to be disinfected, 74, 75. The patient to be kept scrupulously clean. Not to be taken to the hospital in an omnibus, or street cab. No room where a case has been to be reinhabited until purified with chlorine gas, whitewashed or repapered, and had the fresh wind blowing through its open doors and windows for many days.

Curative:—Patient to be in a well-ventilated apartment; free from bed and window curtains, carpets, superfluous furniture; window to be open at the top. A disinfectant to be used; chloride of lime, 75; chloride of zinc, 79; iodine, 81. A fire to be kept up in the room. A form of quarantine to be maintained strictly.

Avoidance of active remedies, at first especially. No specific known for cutting short the disease: quinine fails, and is often injurious. An emetic of one ounce of ipecacuan wine, if case be seen very early. A purgative,—from 30 to 60 grains of compound rhubarb powder. One of the mineral acids, freely diluted, as a daily drink, 357, 358, 359; they are valuable as alteratives, if the blood contain an excess of ammonia. Cold or tepid sponging. Cold lotions to head. Cold affusion, when there is a tendency to coma. Warm bath, prolonged for 30 or 45 minutes, if there be great irritability. Milk diet; farinaceous food; thin broths, well salted; tea and coffee.

When the powers of life begin to fail, stimulants. Wine; gin; brandy; brandy and egg mixture, 17. Strong beef or chicken tea. Administration of the nourishment frequently; every 30, 45, or 60 minutes. Alcohol to be used carefully when urine is scanty or albuminous. Opium to relieve restlessness. Patient to be kept strictly in recumbent posture. Water-bed. Catheter, if urine be retained.

During convalescence:—Mineral acids and bark, 376. Quinine and steel, 380. A gradual return to solid food. Country air.

URÆMIA.—From *Urea; αἷμα*, blood.—Toxæmia from accumulation of urea in the blood, owing to its non-elimination by the kidneys.

Symptoms. Disturbed action of either or both of the great nervous centres. Convulsions. Coma. Albuminuria. Suppression of urine.

Treatment. Hot air or vapour bath. Blanket bath, 136. Wet sheet packing, 136. Acid sponging, 138. Saline aperients, 152. Jalap and senna, 145, 151. Elaterium, 157. Podophyllin, 160. Croton oil, 168, 191. Castor oil and turpentine enemata, 190. Benzoic acid, 49. Lemon juice. Vinegar. Steel. Arsenic. Chloroform vapour, 313. Stimulants. Tea. Venesection? Cupping over loins. Dry cupping to nape of neck and loins. Ice to the head.

URETHRITIS.—From *Urethra* (*Οὐρέω*, to urine); terminal *-itis*. Inflammation of the urethra may be acute or chronic, may arise in

male or female, and may occur independently of gonorrhœa or syphilis.

Symptoms. Sense of heat along urethra. More or less pain on urinating. Muco-purulent discharge. Irritability of bladder. Urine may contain an excess of uric acid; sometimes, blood, pus, or ropy mucus. Lips of urethral orifice swollen. Constitutional disturbance. May cause retention of urine from spasmodic stricture.

Treatment. Hot hip baths. Fomentations and rest in bed, in acute cases. Unstimulating diet. Demulcent drinks. Opium. Belladonna. Copaiba. When chronic, astringent injections.

URINARY CALCULI.—From *Urina*, urine: *Calculus* (dimin. of Calx), a small stone. Synon. *Urolithi.*—These concretions are found in kidneys, bladder, or follicles of prostate gland. Very rarely, one or more urinary salts become deposited in ureters, or in urethra: usually, calculi found in these situations have travelled there from kidneys or bladder. Calculous disease much more common in men than women.

Chief Varieties. Uric acid; Urate of Ammonia; Fusible calculus,—Phosphate of Lime, with Phosphate of Magnesia and Ammonia; Mulberry calculus, — Oxalate of Lime; Carbonate of Lime; and, very uncommon forms, Cystic and Xanthic Oxides. Pseudo-calculi of fibrin or blood-coagula, or of urostealith (a resinous or fatty substance) are exceedingly rare.

Calculi consist of only one substance, or of alternate layers of two or more salts—as of uric acid and oxalate of lime &c.

Urinary concretions vary much in size. Occasionally, resemble grains of sand so small as to pass with urine. Particles of gravel thus voided may be made up of aggregated crystals of urinary salts,—microscopic calculi. In other instances, calculi are as large as a small orange. When a stone has formed in pelvis of kidney, it may, while of moderate size, enter ureter and gradually be forced onwards towards bladder. The suffering which takes place during transit very great; popularly known as "a fit of the gravel." As soon as calculus reaches bladder, all pain is over for a time.

Symptoms of Calculus Retained in Kidney. Almost constant backache. Bloody urine, especially after exertion. Reflex irritation of distant organs. Nervous irritability. Subsequently, impaired health: loss of flesh and strength. Foreign body gradually encroaches on true renal tissue: either converts the gland into a large cyst, or sets up suppurative inflammation. When large calculi are present in both kidneys, case ends in uræmic toxæmia.

Symptoms of Stone in Bladder. Severe attacks of pain in bladder and perineum: always brought on, or aggravated, by exercise. Frequent micturition, sometimes incontinence of urine: with a feeling that bladder is not thoroughly emptied by the act of urinating. Urine often thick with ropy mucus: sometimes contains pus, or blood. Act of micturition often suddenly stopped by stone being forced against neck of bladder: on making any movement, flow of

urine returns. Tenesmus: prolapsus of rectum. Stone discovered by use of sound.

Treatment of Renal Calculus. Plain diet; nourishing food, milk, cream, raw eggs. Weak brandy or whisky and water. Free amount of aqueous drinks. Cod liver oil. Belladonna plasters to loins. Warm clothing: flannel or chamois leather jackets.—*For checking hæmorrhage:*—Gallic acid, 103. Tincture of perchloride of iron, 101, 392. Iron alum, 116. Pill of lead and opium.—In *uric acid* diathesis:—Vegetable diet: white fish. Avoidance of alcoholic drinks. Free use of simple diluents. Vichy or Carlsbad waters. Acetate of potash. Bicarbonate of potash. Solution of potash. Citrate of potash.—In *phosphatic* diathesis:—Animal food. Wine; diluted spirits. Bark. Quinine. Phosphoric acid. Nitro-hydrochloric acid. Steel. Opium. —In *oxaluria:*—Avoidance of garden rhubarb, sorrel salad, and sugar. Nitro-hydrochloric acid. Tepid or cold bathing. Friction of skin. Warm clothing. Sea air. Attention to digestive organs.—*To relieve pain of any form of calculus passing down ureter:*—Hot bath. Chloroform or ether, inhalation of. Opium, in full doses. Belladonna. Barley water, or any emollient diluent, with spirit of nitrous ether.

Treatment of Vesical Calculus in Males. Opium and belladonna to allay pain. If stone be small, patient to allow urine to accumulate and then to discharge it forcibly in hot bath. Introduction of silver catheter with an open end, and washing out of bladder with warm water. Lithotrity. Lithotomy. Attempts at solution of calculus (Litholysis) by alkaline and saline mixtures in the case of uric acid calculi, and by acid solutions for oxalate of lime and phosphatic calculi, have hitherto failed. Injecting solvents into bladder, has not succeeded. Electricity has been employed for disintegrating calculi, but with very doubtful results. That success will ultimately follow attempts at litholysis can hardly be doubted.

Treatment of Vesical Calculus in Females. Four methods for removal of stone:—(1) Lithotrity: by far the best plan, as a general rule. (2) Dilatation of urethra by sponge tents, or a three-bladed expanding dilator, or by India rubber bags which can be inflated after introduction. Patient to be under influence of chloroform. Apt to be followed by permanent incontinence of urine. (3) Incision of external urethral orifice, with stretching of canal by three-bladed dilator. May produce incurable incontinence. (4) Vaginal lithotomy: edges of incision into bladder being brought together by silver wire sutures, as in operation for vesico-vaginal fistula.

URINARY DEPOSITS.—Two varieties,—Inorganic and Organic. (1) *Inorganic Deposits:*—Uric, or lithic acid; amorphous or mixed urates, consisting of uric acid combined with several bases—ammonia, soda, potash, lime; urate of soda; urate of ammonia; hippuric acid; oxalate of lime; carbonate of lime; amorphous phosphate of lime, or bone-earth; crystallized phosphate of lime, or stellar phosphate; phosphate of ammonia and magnesia, or triple phosphate; cystine, or cystic oxide; xanthine, or xanthic oxide; leucine and tyrosine.

(2) *Organic Deposits:*—Epithelium from pelvis of kidney, ureter,

bladder, urethra, and vagina; epithelium from uriniferous tubes, with casts of the tubes (as found associated with albuminuria), such casts or moulds of uriniferous tubes being composed of epithelial cells imbedded in coagulable matter, or of an opaque granular matter, or of transparent waxy matter, or of waxy material studded with minute fatty particles, or of blood disks, or of pus corpuscles; molecular fatty matter, as in chylous urine; oil globules, free, or enclosed in cells, or adherent to casts; pus; blood; cancerous and tubercular matter; spermatozoa; and minute confervoid parasitic vegetations,—sarcinæ, yeast or sugar fungus (Torula cerevisiæ), mould fungus (Penicilium glaucum), and vibriones.

Soluble substances found in morbid urine:—Urea, in abnormal quantity; albumen; sugar; biliary colouring matter; and biliary acids.

UTERINE CANCER.—From Ὑστέρα, the womb: Cancer (καρκίνος, a crab) a kind of ulcer. Synon. *Metro-carcinoma; Carcinoma Uteri.*—Cancer of the womb most frequently met with under form of medullary ulceration of lips or vaginal portion of cervix. Very rarely, infiltration commences in mucous or muscular coat of body or fundus of womb.—Medullary cancer most common variety. Scirrhus seldom observed. Cauliflower excrescence, or epithelioma, not often met with. Uterine cancer most frequent after the 40th year.

Symptoms. Abundant watery discharge, of a dirty pale-green colour, always offensive. Sudden attacks of hæmorrhage. Distressing pain; at first most severe at night, afterwards always present. Nausea and vomiting; flatulence; irregular action of bowels; loathing for food. Painful mental depression. Daily increasing debility, and waste of tissues. Dingy sallow hue of countenance, and pinched anxious expression — cancerous facies.—Uterus found immovably fixed in pelvic cavity. Labia uteri indurated and nodulated at first: subsequently, excavated by an ulcer of a loose spongy character, seated on a hardened base, and surrounded by indurated tissue. Vagina soon gets involved: communications form between vagina and bladder, or vagina and rectum. Death, in course of second year from commencement of symptoms, from exhaustion.

Treatment. *General remedies:* — Ammonia and bark, 371. Mineral acids and bark, 376. Citric acid and bark. Phosphoric acid and quinine, 379. Quinine and belladonna, 383. Zinc and conium, 413. Cod liver oil, 389. Nutritious diet: milk and cream, raw eggs, animal food. Light sparkling wines; sherry; brandy. Malt liquors usually increase dyspepsia. Avoidance of sexual intercourse.—*When stomach is irritable*:—Pepsine, 420. Nitro-hydrochloric and dilute hydrocyanic acids, 378. Ammonia and ether, 364. Bismuth, 112. Ice. Cream of tartar drink, 356. Chlorate of potash drink, where there is soreness of mouth, 360. Castor oil. Confection of senna with taraxacum, 194. Simple enemata, 188. Belladonna liniment to epigastrium. Sinapisms. Hemlock poultices.—*For relief of pain*:—Henbane, camphor, and hop, 325. Opium and henbane, 343. Morphia, chloroform, and Indian hemp, 317. Subcutaneous injection of morphia, 314. Opiate enemata, or suppositories, 339, 340. Oxide

of zinc and belladonna pessaries, 423. Use of a frigorific mixture of ice and salt to uterus, by a gutta percha speculum. Injection of carbonic acid gas: of chloroform vapour. Belladonna liniments or plasters to sacrum. Hemlock poultices to pubes and vulva.—*For control of hæmorrhage:*—Gallic and aromatic sulphuric acids, 103. Cinnamon, 104. Iron alum, 116. Lead and opium, with acetic acid, 117. Turpentine. Digitalis. Application of cold to vulva. Insertion of plug of wool, saturated with solution of perchloride of iron, into ulceration. Injection of solutions of alum and tannic acid, or of infusion of matico. Tannic acid pessaries, 423. Plugging with cotton wool.—*For removal of offensive odour in discharges:*—Cleanliness. Injections of solutions of chlorinated soda or lime; of creasote and water (fl. drm. j to fl. oz. xx); of solution of permanganate of potash and water (fl. drs. iv to fl. oz. xx); of chloride of zinc and water (gr. 20 to fl. oz. xx). Pessary of logwood and cocoa butter (gr. 30 of each). Iodoform pessaries, 423. Padding vulva with muslin bags of vegetable charcoal.

Operations by knife, écraseur, and ligature, useless. Employment of powerful escharotics rarely to be recommended. The treatment of cauliflower excrescence, in early stage, perhaps an exception to two foregoing rules.

UTERINE DISPLACEMENTS.—The uterus may be displaced in several ways, giving rise to much discomfort.

1. Prolapsus and Procidentia.—Terms employed to designate a descent of the womb as it exists in two different grades. By "Prolapsus" (*Prolabor*, to glide forward) is meant that condition in which uterus falls below its natural level in pelvic cavity. By "Procidentia" (*Procido*, to fall down) is signified the protrusion of uterus beyond vulva. Causes of both conditions the same. Suffering varies chiefly in degree.

Symptoms. Sense of fulness or pelvic weight. Bearing-down pains. Backache. Leucorrhœa. No impediment to menstruation; nor to conception, as uterus is generally easily replaced when patient is in bed. Irritation of bladder and rectum. In prolapsus, uterus found depressed, perhaps resting on upper floor of perineum. In procidentia, a round or pear-shaped tumour, with os uteri visible at its centre, seen projecting beyond vulva. Labia uteri often excoriated. Vaginal walls may be dry and harsh and cracked; perhaps, ulcerated.

Treatment.—*General rules:*—Artificial support to be afforded to superincumbent abdominal viscera. Tone to be given to round and broad ligaments of uterus, to relaxed vaginal walls, to perineum. Removal of complications,—uterine congestion or hypertrophy, cough, constipation &c.

To effect reposition in procidentia:—Patient to be placed on left side, with knees well flexed: greased uterus to be gently pushed up. Woman may rest on hands and knees, with head lower than pelvis, so as to remove superincumbent weight of intestines: womb to be then replaced. Uterus to be firmly encircled with strips of plaster for forty-eight hours, and patient kept quiet in bed: circumference of tumour being thus reduced, reposition usually effected with ease after

removal of plaster. All plans failing, uterus has been removed by ligature applied around the neck of tumour formed by it.

To support abdominal viscera:—An abdominal belt of common jean. A pelvic belt, with a firm perineal band and pad,—a modification of the T-bandage. Hull's "Utero-abdominal Supporter." Bigg's abdominal plate, fixed by steel bands somewhat like a truss.

To give tone to tissues:—Phosphoric or nitric acid, nux vomica, and bark, 376. Tincture of perchloride of iron, 380, 392, 397. Quinine and nux vomica, 387. Strychnia and steel, 408. Astringent vaginal injections, 425. Astringent pessaries, 423. Nitrate of silver to vaginal walls. Cold salt water hip baths. Nourishing diet.

To support uterus:—Oval or globular boxwood, vulcanized India rubber, vulcanite, tin, plated or gilt metal, or gum elastic pessaries. Ring pessaries. Hodge's lever pessaries. Pessary of watch-spring, covered with thread and solution of gutta percha. Zwanke's pessary. Removal by dissection of one or more longitudinal strips of vaginal mucous membrane, bringing edges of wound together with wire sutures. Paring the sides and posterior wall of lower part of vagina, and keeping raw surfaces in contact by quill-suture, so as partly to close vulval opening.

2. Retroflexion and Anteflexion.—Retroflexion (*Retro*, backwards; *flecto*, to bend) consists of a bending backwards of uterus, at part where the neck joins the body; so that fundus is found between cervix and rectum, os uteri being in normal position. Uterus becomes shaped like a retort.—In anteflexion (*Ante*, forwards; *flecto*), fundus rests on bladder.

Symptoms. Almost absent when displacement is slight, uterine structures flabby, and pelvic cavity more than ordinarily capacious. Considerable suffering where angle of flexion is acute, uterine ligaments unduly stretched, circulation through uterus impeded, and fundus immovably pressed on rectum or bladder.

Dull wearying backache. Tenderness about groins and inside of thighs. Sense of fulness in rectum or bladder. Pain from sexual intercourse: fœcundation prevented. Dysmenorrhœa. Nausea, loss of appetite, mental depression. Hysteria. Displacement recognised with certainty by use of uterine sound.

Treatment. Replacement by pushing fundus upwards, with or without assistance of uterine sound. Use of intra-uterine stem. Pessaries of belladonna and iodide of lead or mercurial ointment, 423. Dilatation of uterine cavity and cervix with sponge or seatangle tents (426), allowing uterus afterwards to contract in normal position upon a metallic stem. Horse-shoe shaped vaginal pessaries. Division of os and cervix with hysterotome, so as to remove contraction of muscular tissue at point of flexion.

3. Retroversion and Anteversion.—In retroversion (*Retro*, backwards; *verto*, to turn), uterus lies almost transversely in uterine cavity; with fundus towards hollow of sacrum, and os uteri under pubic arch. The opposite condition, anteversion (*Ante*, forwards; *verto*) is characterised by fundus lying towards bladder, and os uteri in cavity of sacrum.

Symptoms. Backache, bearing-down. Leucorrhœa. Menstruation not interfered with: impregnation not absolutely prevented. In retroversion, pressure of labia uteri on urethra may cause retention of urine, —a common result in pregnancy.

Treatment. Occasional replacement. Quinine, steel, and nux vomica, 380. Mineral acids with strychnia, 378. Nourishing food. Injections of alum and sulphate of zinc, 425. Tannin pessaries, 423. Cold sea-water baths. Avoidance of over-exertion, straining at stool &c. In displacement during pregnancy, reposition best effected with patient resting on hands and knees: chloroform may be required. Use of catheter.

4. Inversion of Uterus.—From *In*, in; *verto*, to turn. Synon. *Inversio Uteri.*—The uterus is literally turned inside out. Fundus descends through os uteri; mucous lining of cavity of womb becoming the external covering of tumour, which projects into vagina and generally through vulva. Usually happens directly after labour; but has followed the expulsion of a polypus.

Symptoms. Severe nervous shock. Great depression and faintness. Bearing-down pain. Nausea and vomiting. Perhaps, hæmorrhage. Sometimes death from shock, especially if the labour has been difficult. Where the accident has not been detected at time of occurrence, patients have gone on for months, or even years, suffering from bad health, anæmia, repeated attacks of hæmorrhage, sacral and pelvic pains &c.

Treatment. When occurring directly after labour, placenta to be peeled off if it remain attached. Uterus to be firmly grasped, and steady pressure made in upward direction so as to reduce that portion first which has last descended: patient may be under influence of chloroform.—In chronic cases, attempts at replacement may have to be gently persevered with even for an hour or rather longer. Occasionally, the attempt has had to be repeated for many days in succession; pressure having been kept up during the intervals by a well-adapted air pessary. All plans failing, uterus has been removed by ligature.

UTERINE HÆMORRHAGE. — Synon. *Hæmorrhagia Uteri; Metrorrhagia; Flooding.*—Arises chiefly from:—Cancer of uterus. Fibroid tumours or polypi. Endometritis. Inflammatory diseases of the cervix. Congestion of the ovaries. Moles.

Often the precursor of abortion. In latter months of pregnancy, indicative of separation of the placenta; or of placenta prævia.

Treatment. See *Menorrhagia.*

UTERINE TUMOUR.—Synon. *Hysteroncus; Metroncus; Hysterophyma; Metrophyma; Tumor Uteri.*—Of all organic diseases of uterus first manifesting themselves during period of sexual vigour, non-malignant tumours are the most common.

1. Fibroid Tumours.—Consist of outgrowths of uterine tissue. Are single or multiple. Sometimes attain an enormous size. May be developed in any part of uterus. Classified as sub-peritoneal or surface tumours, when just beneath peritoneum; interstitial or intra-mural

tumours, when imbedded in uterine walls; and sub-mucous or intra-uterine tumours, when pressed into cavity of womb.

Symptoms. Often neither important nor well-marked. When of sufficient size to encroach on pelvic viscera, or to be detected through abdominal wall, symptoms more prominent. Menstrual irregularities,—frequently menorrhagia. Dull, aching, throbbing pains. Sense of weight and bearing-down. Cramp or numbness in one or both thighs. Difficulty in voiding or in retaining urine. Constipation: hæmorrhoids. Enlargement and tenderness of breasts. Attacks of severe hæmorrhage in intra-uterine growths: occasionally, expulsive pains. Tumour detected on careful abdominal manipulation, and vaginal examination.

Treatment. In a large number of cases, the less fibroid tumours are interfered with the better. Great danger from attempting radical cure by enucleation, gouging growth and scooping away portions, or by abdominal section.—*Remedies recommended to produce absorption:*—Mercury; iodine; iodide of potassium; solution of potash. Bromide of potassium, 42. Bromide of ammonium, 37. Chloride of calcium, 35.—*For control of hæmorrhage:*—Corrosive sublimate, 27. Gallic acid, 103. Oxide of silver and Indian hemp, 47. Iron alum, 116. Incision of os and cervix uteri. Incision into exposed part of tumour, where it can be easily reached from vagina.—*For relief of pressure on pelvic viscera:*—Gentle elevation of tumour into false pelvis. Iodide of lead and belladonna pessaries, 423.—*For cure of suffering due to congestion or œdema of growth:*—Bromide of potassium, 42. Kreuznach waters, 484.

2. Polypus of Uterus.—From Πολὺς, many; πούς, a foot: Ὑστέρα, the womb. Synon. *Metropolypus; Hysteropolypus; Polypus of the Womb.*—A tumour attached to inner surface of uterus by a pedicle or neck. May occupy uterine cavity, or be in vagina and merely attached to uterus by pedicle. Three varieties:—Fibroid, mucous or gelatinous, and placental.

Symptoms. Profuse menstruation. Irregular attacks of uterine hæmorrhage,—often amounting to flooding. Profuse leucorrhœal discharge. Irritation of pelvic viscera from pressure. Spasmodic attacks of pain. Debility and loss of flesh, in proportion to amount of discharges. Tumour found on making vaginal examination: if it be in uterine cavity, easily detected after dilating os by sponge-tents.

Treatment. *If in vagina:*—Tumour to be removed by dividing pedicle with scissors or wire-rope écraseur.—*If in utero:*—Os uteri to be fully dilated with sea-tangle or sponge tents (426), and tumour subsequently removed by division of pedicle with wire-rope écraseur. Sometimes, can be taken away by torsion, when pedicle is slender.

3. Cysts of Uterus.—Unilocular cysts, or closed sacs, filled with mucus or serum, are occasionally developed in substance of uterus, or just beneath internal mucous lining, or under external serous covering. Sometimes, one part of uterus invaded by cystic growth, while another is the seat of an ordinary fibroid tumour. These cysts only give rise to inconvenience when they attain such a size as to admit of their detection. If within reach, they may be punctured: if pediculated

and pressing into uterine cavity, they can be twisted off after dilating the os uteri with sponge-tents.

UTERINE ULCERATION.—From Ὑστέρα, the womb: *Ulcero*, to cause to ulcerate. Synon. *Hysterelcosis; Uteri Exulceratio.*—As a frequent result of congestion and inflammation of lower part of uterus, various forms of ulceration are found about the cervix:—

1. Simple Abrasion.—Synon. *Excoriation*, or *Erosion, of Labia Uteri.*—Epithelium removed from a part of one or both lips; exposed villi with their looped capillaries conveying a "velvety" feel to the touch. Extent of abrasion easily ascertained with speculum.

Symptoms. Leucorrhœal discharge. Pelvic and sacral pains. Ovarian irritation. Indigestion: flatulence, with irregular action of bowels. Irregular menstruation. Depression of general health.

Treatment. *Locally:*—Alum or zinc injections, 425. Tepid or warm salt water hip baths. Iodide of lead and belladonna, or acetate of lead and opium, pessaries, 423. Application of solid nitrate of silver. Undiluted solution of subacetate of lead. Glycerine. Collodium, 285. Mercurial ointment. Acid solution of nitrate of mercury. Potassa fusa. Scarification of labia, or application of three or four leeches where there is congestion.

Generally:—Animal food: milk. Claret, sherry, champagne, or brandy and water,—in place of malt liquors. Nitro-hydrochloric acid, 378. Salicin, 388. Quinine, 379. Pepsine, 420. Rhubarb and ipecacuanha, 179. Oxide of silver, 47. Arsenic and bark, 52. Iodide of potassium, 31. Cod liver oil. Moderate exercise in open air.

2. Ulceration of Labia Uteri.—Uterine lips not only more or less deprived of dense epithelium, but the villi with their vascular loops destroyed in patches. Sometimes, proper tissue of uterus involved.

Symptoms. Thick muco-purulent discharge. Pelvic pains. Backache. Menorrhagia. Anæmia: headache, neuralgia, dirty sallow hue of skin, irregular action of bowels, loss of appetite &c. Debility: mental depression. Pains increased by walking or sitting upright. Reflex irritation of breasts, bladder, and rectum.

Treatment. Same as for simple abrasion. Warm water or astringent injections night and morning. Tonics. Nourishing food: stimulants. Relief to reflex irritation by iodide of lead and belladonna pessaries, 423. Avoidance of sexual intercourse.

3. Syphilitic Affections.—*Primary syphilitic sores* very rare. Chancre may be situated on labia, within canal of cervix, or on outside and upper part of cervix.—*Secondary syphilitic affections of uterus* not uncommon. Chief symptoms,—Hypertrophy and induration of vaginal portion of cervix. Abundant muco-purulent discharge from uterus and vagina. Patches of abrasion, or of ulceration, on labia uteri. Menstrual irregularities,—often menorrhagia. Evidence of disease in distant parts,—loss of hair, sore throat, cutaneous eruptions, nodes &c. Treatment the same as for syphilis generally.

4. Rodent Ulcer.—Synon. *Corroding Ulcer.*—A severe disease, which has been confounded with epithelial cancer. Very rare before age of thirty: usually commences about "change of life."

Symptoms. Ulceration begins gradually and extends slowly. As it eats away affected tissue, complaint made of pelvic heat and discomfort; thin serous discharge, occasionally streaked with blood. Debility, pallor, indigestion. Subsequently,—burning pains; attacks of hæmorrhage. On examination, an irregularly-shaped ulcer found, with ragged or indurated edges: sore excavated, presenting a dry and glossy or a pulpy surface. Uterus not fixed, as in cancer. Sometimes, whole of cervix destroyed. Disease eats its way into body of uterus; so that entire muscular structure gets destroyed, unless death first occur from hæmorrhage or peritonitis or exhaustion.

Treatment. Excision, if disease be limited to cervix: otherwise, actual cautery, or potential caustics. Sedative vaginal injections, 425. Opium and belladonna pessaries, 423. Arsenic, 52. Cod liver oil. Tonics. Narcotics. Nourishing food.

URTICARIA. — From *Urtica*, a nettle. Synon. *Purpura Urticata; Exanthema Urticatum; Nettle-Rash.* — A non-contagious affection of the skin. One of the *Exanthemata.* Characterised by formation of prominent patches or wheals (pomphi), which often appear and disappear suddenly: accompanied by heat, burning with tingling, and great itching. Sometimes, constitutional disturbance: fever, coated tongue, unhealthy secretions. A chronic intermittent variety (*Urticaria Evanida* of Willan), often very troublesome, lasting for months.

Urticaria generally due to derangement of digestive organs, caused by use of shell-fish, mushrooms, cucumbers, nuts, bitter almonds. Henbane, turpentine, nux vomica, and balsam of copaiba may induce it. Sometimes connected with rheumatism or gout, uterine irritation, dentition &c.

Treatment. Sulphate of magnesia in acid infusion of roses, 142. Rhubarb and magnesia, 165. Rhubarb and blue pill, 171. Ammonia and chiretta, 63. Bismuth, 65. Potash and ammonia, 67. Ammonia in effervescence, 362. Nitro-hydrochloric acid, 378. Steel and ammonia, 401. Steel and citrate of potash, 403. Pepsine, 420. Iodide of potassium and colchicum (in chronic form). Quinine, 379. Arsenic, 52. Sponging with vinegar and water: equal parts of tincture of arnica, glycerine, and rose water: equal parts of solution of subacetate of lead, laurel water, glycerine, and elder-flower water: solution of corrosive sublimate (gr. 5 to fl. oz. viij). Warm or tepid baths. Plain diet. Active exercise.

VACCINIA.—From *Vacca*, a cow. Synon. *Variola Vaccina; Exanthema Antivariolosum; Vacciola; Inoculated Cow-Pox.*—A disease produced by inoculation with the virus of cow-pox, such disease affording protection against the contagion of small-pox. Included by Willan in the *Vesicular* order of skin diseases.—See *Cow-Pox.*

VAGINAL OCCLUSION.—From *Vagina*, a sheath or scabbard.—Independently of cases where, from arrest of development, vagina is entirely absent, or is considerably malformed, examples of occlusion can be arranged under one of three heads:—

(1) Those where there is a morbidly tough and persistent hymen. If the membrane cannot be ruptured with finger, it must be divided; reunion being prevented by use of oiled lint. (2) Where the hymen is hypertrophied and imperforate, so as completely to close vaginal canal from urethra to fourchette, preventing escape of menstrual fluid. A longitudinal or crucial incision to be made through obstructing membrane. Under such conditions, operation attended with considerable danger: fatal peritonitis, endometritis, or pyæmia not uncommon. And (3) cases of imperforate vagina; whether due to congenital adhesions between opposite walls, to stricture in consequence of inflammation, or to cicatrices consequent on injury. A careful dissection often required to make canal patulous.

VAGINAL PROLAPSUS.—From *Vagina*, a sheath: *Prolabor*, to fall, or slip out. Synon. *Hysteroptosis Vaginæ; Colpoptosis; Elytroptosis.*—A descent, more or less complete, of the vagina.

Symptoms. Protrusion of the vagina usually accompanied by prolapsus uteri, though it may occur alone. If entire circumference of vaginal mucous membrane be prolapsed, a projecting tumour is found at vulva. Surface may be inflamed and excoriated. Bladder rendered irritable: often, emptied with difficulty.

Cases of partial more common than of complete prolapsus. When anterior wall is alone affected, posterior wall of bladder is drawn down —*Vaginal cystocele.* The posterior wall of vagina and anterior wall of rectum may be protruded—*Vaginal rectocele.* In the one case, urine is apt to accumulate in pouch formed by bladder; in the other, a pocket forms, in which hard fæcal masses are retained, causing constipation and sense of weight.

Treatment. *Generally*:—Nourishing food. Rest. Avoidance of straining, and of lifting heavy weights. Quinine, steel, and strychnia, 380. Phosphoric acid, nux vomica, and bark, 376. Phosphate of zinc and steel, or bark, 414. Sulphate of zinc and nux vomica, 409. Colocynth, or aloes, and nux vomica, 175. Olive oil enemata, 188. Castor oil and turpentine enemata, 190.—*Locally*:—Cold salt water hip baths. Alum and zinc injections, 425. Tannin and catechu pessaries, 423. Boxwood, or India rubber pessaries. Diminution of vaginal capacity, by dissecting off one or more strips of mucous membrane, and bringing edges together with interrupted suture.

VAGINAL TUMOURS.—These growths may consist of:—

Polypus of vagina. Very rare. Produces leucorrhœa, bearing-down, irritability of bladder &c. May be cured by excision. If any vessel be felt pulsating in pedicle, a ligature should be applied, and tumour snipped off just below it.

Fibrous tumours. Sometimes found imbedded in submucous tissue of vaginal wall. Seldom troublesome: may perhaps cause hæmorrhage. Growth can be shelled out with fingers or handle of scalpel, after division of mucous membrane covering it.

Mucous follicular cysts. May be superficial; formed by dilated follicle, excretory orifice of which has closed. Deep-seated cysts pro-

duced by accumulation of contents of interstitial or closed follicles. Either form to be cured by puncture, and application of nitrate of silver to inner walls.

VAGINISMUS.—From *Vagina*, a sheath; terminal *-ismus*.—An involuntary spasmodic closure of the sphincter muscle of the vagina, with such excessive supersensitiveness of the surrounding tissues as to form a complete barrier to coition (Marion Sims).

May exist as a simple or complicated state. In first case, no local structural change. Excessive tenderness of vaginal orifice, and of hymen or its remains. Slightest touch causes great agony. In second form, in addition to supersensitiveness, inflammation of follicles about vulva; or fissure of fourchette; or hyperæsthesia of entire vaginal mucous lining; or some uterine displacement; or a contracted state of os uteri and cervical canal.—In either form, essential remedy consists in removal of hymen, incision of vaginal orifice, and subsequent dilatation with graduated bougies.

VAGINITIS.—From *Vagina*, a sheath; terminal *-itis*. Inflammation of the vagina may be acute or chronic:—

1. Acute Vaginitis.—Synon. *Elytritis; Colpitis.*—Not very common. Morbid action not always limited to mucous membrane: tissues beneath sometimes involved, causing distressing suffering. Arises from violence; pressure of fœtal head in lingering labour; want of cleanliness with depression of vital powers &c.

Symptoms. Pain and sense of heat in vagina. Itching about vulva. Irritability of bladder. At first, mucous membrane dry and swollen: secretion of mucus checked. Then, creamy mucus, or mucopurulent matter, or pus is poured out: pain diminishes. Backache; pains about hips and upper part of thighs; sense of weight or bearing-down; smarting and tenderness. Disease runs its course in seven or eight days, or subsides into chronic form.—If submucous tissues be involved, there may be rigors, fever, headache, rapid pulse, severe throbbing pains. Suppuration: abscess bursts into vagina, or pus burrows making its way to perineum or sides of labia.

Treatment. Hot hip baths. Vaginal injections of warm water. Pessaries of oxide of zinc and belladonna, or of acetate of lead and opium, 423. Confinement to bed or sofa. Castor oil. Cubebs. Fish diet: eggs, milk, tea, demulcent drinks.—*If suppuration occur:*—Ammonia and bark, 371. Quinine with mineral acids, 379. Opium or morphia, 343. Opium and belladonna, 344. Fomentations or linseed poultices to vulva. Abscesses to be opened if they point.

2. Chronic Vaginitis.—Synon. *Catarrhus Genitalium; Blennorrhœa Genitalium; The Whites; Vaginal Leucorrhœa* (Λευκὸς, white; ῥέω, to flow).—One of the most common diseases to which women (particularly the married) are liable.

Symptoms. Constant or frequent leucorrhœal discharge—"the whites." Backache; sense of weariness after slight exertion. Loss of appetite; indigestion; flatulence and constipation. Mental de-

pression.—Exfoliation of epithelial covering of mucous membrane may occur: comes away in flakes, or in masses forming complete casts of vagina.

Treatment. Mineral acids and bark, 376. Nitro-hydrochloric acid, 378. Mineral acids and quinine, 379. Quinine and steel, 380. Phosphate of iron, 405. Gallic acid. Colchicum. Cod liver oil. Pepsine.—Cold salt water hip baths. Astringent injections, 425. Tannic acid, or sulphate of zinc, or acetate of lead pessaries, 423. Brushing vaginal walls with solution of nitrate of silver, or solution of carbolic acid in glycerine (gr. 10 to fl. oz. j).

VARICELLA.—The dim. of *Variola* (*Varius*, spotted). Synon. *Variola Spuria; Pseudovariolæ.*—The mildest of the eruptive fevers. Often classed with the *Vesicular* skin diseases.—See *Chicken-Pox.*

VARICOCELE.—From *Varix*, a dilated vein; *κήλη*, a tumour. Synon. *Oscheocele Varicosa; Spermatocele; Cirsocele* (from Κιρσὸς, a varix; *κήλη*).—A varicose condition of the veins of the spermatic cord may arise from any cause which retards upward flow of blood,—as tumours, trusses, constipation, corpulence, frequent straining in erect posture &c. Spermatic veins on left side most frequently affected, owing to their greater length, and greater liability to pressure from a distended colon.

Symptoms. Swelling; pyriform with base on testis. Veins can be rolled under fingers, like worms in a bag. Weight, and aching about groin and loin. Uneasiness or pain about scrotum. Neuralgia of testicle, sometimes atrophy. Mental depression.

Treatment. *Palliative:*—A regular action of bowels to be insured by attention to diet, mild aperients. Improvement of general health: mineral acids, nux vomica &c. Bathing scrotum with salt water night and morning. Firm support with a suspensory bandage. Invagination of loose skin of scrotum through a padded steel ring. *Radical cure:*—Obliteration of the veins. To be accomplished either by a spring truss; or by passing ligatures of silver or iron wire subcutaneously, so as only to divide the veins; or by passing a hare-lip pin underneath the veins, and then twisting a figure of 8 suture over it. None of these proceedings free from risk.

VARIOLA.—From *Varius*, spotted. Synon. *Pestis Variolosa.*—A very contagious eruptive fever; the frequency and severity of which have been greatly diminished by the discovery of vaccination. Included by Willan in the *Pustular* order of skin diseases.—See *Small-Pox.*

VASCULAR TUMOURS OF URETHRAL ORIFICE.—Synon. *Urethral Hæmorrhoids.*—Not uncommon in females: very rarely, vascular tumours have been found at orifice of male urethra.

In women, external orifice of meatus urinarius is the most frequent seat of vascular tumour. Excrescence varies in size from that of a pin's head to that of a date stone. Exquisitely sensitive, often causing irritability of bladder with pain on passing water. To be

cured by excision and subsequent application of actual cautery to sub-mucous base. Or a ligature may be applied, passing a tenaculum through base and tying tightly round it. Chloroform usually necessary for either operation. Patient to be in position for lithotomy. Acid solution of nitrate of mercury, or potassa fusa, sometimes employed. Nitrate of silver worse than useless.

VENEREAL DISEASE.—From *Venus*, the Goddess of Love. A term generally applied to those disorders which result from impure connexion.—See *Gonorrhœa ; Syphilis* &c.

VERRUCÆ.—From *Verruca*, a wart. Synon. *Ecphyma Verruca ; Vegetations ; Warts.*—Consist of collections of hypertrophied cutaneous papillæ; each papilla being separate and merely covered with thin cuticle, or a bundle of papillæ being bound together by an excess of dry and hard scaly epithelium.

Treatment. Excision. Nitrate of silver. Glacial acetic acid. Acid solution of nitrate of mercury. Creasote. Carbolic acid. Savin. Chromic acid, 196. Tincture of perchloride of iron.

VERTIGO.—From *Verto*, to turn round. Synon. *Circumgyratio ; Giddiness ; Swimming of the Head.*—A transitory sense of giddiness, of whirling round, or of falling. Surrounding objects appear to be in motion: sufferer loses his balance for a moment or two, and is in danger of falling unless he can grasp some object. Usually followed by headache: occasionally, by nausea.

Often a symptom of incipient disease of brain. Sometimes betokens general weakness; or a poison in blood, as opium or tobacco or alcohol; or some cardiac, hepatic, renal, gastric, or intestinal affection. Any disturbance of cerebral circulation will induce giddiness. In mild form of epilepsy, giddiness and a fit of absence (epileptic vertigo) are prominent symptoms. Swimming in head, a forerunner of apoplexy and paralysis. Paroxysmal attacks not uncommon in the aged, either without obvious cause, or from disease of coats of cerebral arteries, or from passive venous congestion.

Tonic and antispasmodic remedies more frequently called for than those of a lowering nature. Chalybeates when there is anæmia. Purgatives, spare diet, blisters behind ears, out-door exercise if there be evidence of active arterial congestion. Small doses of corrosive sublimate in simple vertigo of old people.

VESICAL INFLAMMATION.—From *Vesica*, the urinary bladder: *Inflammo*, to inflame. Synon. *Cystitis ; Cystophlogia ; Inflammatio Vesicæ.*—Inflammation of the bladder may be acute or chronic:—

1. Acute Cystitis.—From Κύστις, a bladder; terminal *-itis.* A severe disease which may arise idiopathically; or may supervene on chronic inflammation, irritation of a calculus, external injury, disease of pelvic viscera &c. Mucous lining of neck and bas-fond of bladder more frequently attacked than all the coats.

Symptoms. Shivering. Pain over bladder. Heat of urethra:

constant desire to pass urine, which comes away in small quantities. High fever. Nausea. Constitutional disturbance: mental depression. Bladder can perhaps be felt as a small rounded tender tumour. Severe pain, extending to perineum and down thighs: increased by abdominal pressure, rectal or vaginal examination. Tenesmus.—Unless resolution occur, — unbearable pain. Constant calls to micturate: urine expelled in drops, or retention. Urine becomes fetid and alkaline: contains shreds of fibrin entangling pus and blood corpuscles. Great prostration. Cold clammy sweats. Low muttering delirium. Fatal exhaustion.

Treatment. Opium. Opium and belladonna, 344. Aconite. Hot hip baths. Fomentations. Linseed or hemlock poultices. Castor oil. Mucilaginous fluids. Catheterism. Wine, brandy, cream, raw eggs, essence of beef &c. as soon as indications of exhaustion commence.

2. Chronic Cystitis. — Synon. *Cystirrhœa; Cystorrhœa; Blennorhœa Urinalis; Tenesmus Vesicæ Mucosus; Catarrhus Vesicæ.*— This form of inflammation common. Sometimes follows an acute attack: more frequently due to gout, retention of decomposing urine, irritation of urine charged with saline diuretics, foreign substances in bladder, or to extension of inflammation from rectum or uterus &c.

Symptoms. Often slight. Feeling of indisposition. Increased sensibility of bladder walls. Frequent micturition. Urine scanty, with perhaps a small quantity of mucus or pus: sometimes loaded with viscid ropy mucus.

Treatment. Catheterism, unless bladder can be thoroughly emptied at will. Washing out bladder with warm water; or with solutions of henbane, opium, or some astringent. Opium and belladonna suppository, 340. Oxide of zinc and belladonna vaginal pessaries, 423. Belladonna plaster to sacrum. Benzoate of ammonia, 40. Infusion of bearberry (infusum uvæ ursi). Infusion of buchu. Decoction of pareira. Decoction of couch-grass. Cubebs, in small doses. Demulcent drinks: barley water, infusion of linseed &c. Animal food: milk or cream: raw eggs. Alcoholic stimulants.

VESICAL IRRITABILITY.—From *Vesica*, the urinary bladder. Synon. *Impatientia Vesicæ; Cysterethismus.* — Irritability of the bladder is said to exist when there is an unnaturally frequent desire to pass urine. May arise from organic disease of kidneys, bladder, prostate gland, or urethra; vascular tumour of female urethra; pressure of enlarged or displaced uterus; irritation of hæmorrhoids, or intestinal worms; presence of a tumour or calculus in bladder; or simply from some functional derangement of kidneys, bladder, stomach, or nervous system.

Symptoms. Desire to micturate comes on suddenly and frequently: urine may have to be passed every fifteen or thirty minutes. Inability to resist desire: if attempted, uneasiness or aching pain. Total amount of urine seldom increased in quantity. Bladder diminishes in size. General health suffers from the annoying irritation.

Urine always to be examined. If preternaturally acid or alkaline; if loaded with urates, phosphates, or oxalates; or if it contain pus, albumen, sugar, or any other morbid material,—disease must be traced to its origin.

Treatment. Dilute nitro-hydrochloric acid, belladonna, and pareira, 378. Solution of potash and buchu, 69. Ferruginous tonics. Decoction of couch-grass or triticum repens (oz. 1 of underground stem to water fl. oz. xx). Opiate or belladonna suppositories, 340. Oxide of zinc and belladonna pessaries (for women), 423. Tincture of cantharides. Tincture of benzoin. Infusion of bearberry. Colchicum. Cod liver oil.—Warm or tepid salt water baths. Local application of carbonic acid gas. Avoidance of stimulants. Substitution of cocoa for tea and coffee. Mucilaginous diluents.—See *Enuresis.*

VESICAL PARALYSIS. — From *Vesica*, the urinary bladder: Παραλύω, to affect with paralysis. Synon. *Cystoparalysis; Cystoplegia; Acystinervia.*—The muscular coat of bladder may become paralysed from some influence confined to this viscus; disease of nervous centres, inducing simultaneous loss of power in other organs; or from constitutional debility.

Symptoms. Unlike the rectum, the bladder retains its contents when paralysed. When distension becomes great, urine dribbles away by urethra: hence, incontinence of urine often an indication of retention. Urine loaded with mucus: alkaline: offensive ammoniacal odour. Pain at neck of bladder: as distension gets great, the walls lose their sensibility. Severe constitutional disturbance. Frequently, death from coma or exhaustion.

Treatment. Use of catheter: bladder to be slowly but thoroughly emptied. Tepid or cold water injections. Ergot of rye. Strychnia or nux vomica. Arnica. Aloetic purgatives. Hip baths. Galvanism, cold douche, or blisters to lower part of spine.

When disease of nervous centres exists, symptoms can only be relieved as they arise.—See *Enuresis.*

VESICAL SPASM.—From *Vesica*, the urinary bladder. Synon. *Cystospasmus; Ischuria Spasmodica.*—Spasmodic attacks of pain in bladder. May arise from vesical calculus or tumour; diseases of rectum and uterus; abscess of kidney; ulceration or other organic disease of bladder, prostate gland &c; abnormally acid urine; excessive venery; hysteria; or from use of irritating diuretics—cantharides, oil of juniper, savin.

Symptoms. Severe pain at lower part of abdomen, extending to urethra. Involuntary micturition: sometimes retention of urine with urgent desire to micturate. Tenesmus.—When of long continuance, death has resulted with symptoms of suppression of urine.

Treatment. *Relief of spasm:*—Hot baths. Hemlock poultice. Poppyhead fomentations. Linseed poultice with camphor to perineum. Opium and belladonna suppository, 340. Ether and opium draughts, 85. Mucilaginous drinks.

Removal of cause:—Colchicum. Quinine. Citrate of potash. Regulation of diet: avoidance of stimulants, tea, and coffee. Warm clothing. Avoidance of violent exercise: sexual intercourse. Appropriate remedies for renal abscess, calculi &c.

VESICAL TUMOURS.—From *Vesica*, the urinary bladder.—The growths which may be developed on the walls of the bladder are:—Warty or polypoid fibrous bodies; villous or vascular growths; and malignant tumours.

Symptoms. Whatever the nature of the tumour, the symptoms resemble those caused by a calculus. Frequent micturition. A painful sense of inability to empty bladder. Urine may be bloody, or purulent, or ammoniacal and loaded with mucus.

Malignant more common than innocent growths. Medullary cancer, or epithelioma, more frequent than scirrhus. Cancerous deposit generally primary; but may result from extension of disease from rectum, prostate, uterus, or vagina. Suffering very great. Urine bloody: perhaps cancer-cells may be found.

Treatment. Relief of prominent symptoms. Narcotics, to ease pain. Astringents, to check hæmorrhage. Nutritious food.

Polypoid fibrous, and pendulous villous growths, have been removed by ligature from female bladder, owing to ease with which urethra can be dilated.

VILLOUS CANCER.—From *Villus*, shaggy hair.—A variety of medullary and perhaps of epithelial cancer, occurring most frequently on mucous membrane of urinary bladder. The histories coincide with those of medullary cancers.—See *Cancer*.

VITILIGO.—From *Vitulus*, a calf; terminal *-igo*. A rare disease, said to produce a glistening veal-like appearance of skin.—Two varieties:—*Vitiligoidea plana* and *V. tuberosa*, which may occur separately or combined. In former, irregular yellow patches are observed, slightly elevated and hard; in latter, isolated or confluent tubercles, ranging from the size of a pin's head to that of a large pea. Possibly there may be some connexion between this skin disease and derangement of the liver.

Vitiligo sometimes confused by authors with lepral alphoides, or with lupus non-exedens. Other writers seem to regard the appearances as merely due to a diminution of pigment, without any change of texture; making it of same nature as leucoderma. No remedy for it at present known.

VOMITING AND RETCHING.—Synon. *Emesis; Sickness of the Stomach*; *Spewing*.—Vomiting (from *Vomo*) is due to forcible and repeated contractions of the stomach, with relaxation of the cardiac sphincter, so that the gastric contents are expelled upwards. In retching there are fruitless attempts to empty the stomach, the cardiac sphincter being contracted; or the stomach is empty.

Sickness arises in many diseases: *i.e.* cerebral, pulmonary, renal,

biliary, gastric, intestinal, or uterine and ovarian disorders. It may be due to sympathetic irritation of pregnancy. To ingestion of poisonous or irritating substances: drunkenness. To blood-poisoning, as in ichorhæmia: continued and eruptive fevers. Or it may occur as an idiopathic affection,—no other morbid state being discoverable.

Symptoms. Vary with the cause. Some prominent distinctions are shown in following table:—

Gastric or Hepatic Vomiting.	*Cerebral or Sympathetic Vomiting.*
1. Nausea relieved, at all events, temporarily, by the discharge of the stomach's contents.	1. Little or no nausea. Retching continues, often in spite of stomach being empty. Directly any fluid or solid is taken, it is rejected.
2. Vomit consists of partially digested food, biliary matters, and offensive secretions. Sometimes acid water; pus; blood.	2. Vomit consists of unaltered food. Of frothy mucus. Never pus or blood. Sometimes a tinge of bile.
3. Loss of appetite, or even a disgust for food.	3. Appetite remains. Frequently a desire for food immediately after vomiting.
4. Tongue coated; breath foul; conjunctivæ often yellowish; headache secondary in point of time.	4. Tongue clean; breath pure; conjunctivæ colourless, or only injected; headache primary.
5. Griping abdominal pain; fetid eructations; diarrhœa; unhealthy watery stools.	5. No eructations of foul air. Generally, obstinate constipation; or stools solid and healthy.
6. Retching; increased salivation; more or less abdominal tenderness; faintness or exhaustion.	6. Stomach emptied without effort; no increase of saliva; no abdominal tenderness; little or no fatigue or faintness after vomiting.

Treatment. *General remedies:*—Attention to diet: bland simple nourishment, in small quantities at a time. Aperient enemata, 188, 189, 190. Calomel in purgative doses (grs. 5 to 10). Calomel, blue pill, or mercury with chalk, as alteratives. Taraxacum, 227, 228. Seidlitz powders, 169. Podophyllum, 160. Carbonate of magnesia. Tartaric or citric acid. White bismuth, 65. Charcoal biscuits. Coffee. Carbonic acid. Citrate of ammonia, potash, or soda in effervescence, 348, 362, 403. Dilute hydrocyanic acid, 70, 86, 377. Laurel leaf water (aqua laurocerasi, min. x to xxx). Dilute nitro-hydrochloric acid, 378. Creasote, 41, 90. Carbolic acid. Rectified pyroxylic spirit (spiritus pyroxylicus rectificatus, min. v to xl). Carbonate of ammonia. Aromatic spirit of ammonia. Infusion or tincture of calumba. Cinnamon. Spirit of chloroform. Three or four drops of chloroform on a lump of sugar. Spirit of ether. Nitrate of silver. Sulphate of copper. Oxide of silver, 47. Salicin, 388. Sulphite of soda, 48. Opium. Belladonna. Pepsine, 420. Ice.

Locally:—Sinapisms over epigastrium. Blisters. Seton. Issues. Hemlock poultices. Linseed poultices. Wet compress, 136. Bella-

donna, opium, warm, galbanum, pitch, or chalybeate plaster. Extracts of belladonna and poppies, 297. Dry cupping. Leeches.

Sympathetic vomiting, in pregnancy, uterine or ovarian disease &c.:—Ice to suck freely. Soda water. Champagne; sparkling Hock or Moselle. Pepsine, 420. Tincture of iodine in small doses. Strong coffee before rising in the morning. Infusion of cloves. Lemon juice. Oxalate of cerium (gr. 1 to 2 in a pill). Rectified pyroxylic spirit. White bismuth. Effervescing draughts with calumba, cascarilla &c. Setons, issues, sinapisms, stimulating liniments, turpentine stupes, or repeated flying blisters to epigastrium. Leeches to os uteri, if there be congestion: nitrate of silver, if there be excoriation or ulceration. Vaginal pessaries of iodide of lead and belladonna, 423. In very severe cases, the induction of premature labour.

Hysterical vomiting:—Sumbul, 369. Nux vomica, or strychnia, 387, 407, 408. Assafœtida, 89, 190. Valerian, 87, 363, 411. Shower baths. Dry cupping over stomach and margins of lower ribs.

Sea-sickness:—Recumbent posture. Ammonia. Brandy. Whisky. Chloroform by inhalation, or a few drops on sugar. A tight belt round the body. Chapman's ice bags to spine.

See *Gastritis; Gastric Ulcer; Gastric Cancer; Cholera; Hæmatemesis; Obstruction of Bowels* &c.

VULVAL CANCER.—From *Vulva*, a covering,—or perhaps as if *Valvæ*, folding doors.—Any part of external genitals, or of vaginal walls, may become the seat of malignant disease. Occurs primarily, or secondarily. Epithelial cancer more common than other forms. Relief may be given by excision, where disease is confined to external labia.—See *Cancer*.

VULVAL CORRODING ULCER.—Synon. *Vulval Esthiomenos* (Ἐσθίω, to corrode or eat away).—An inveterate and progressive ulceration of external genitals. Probably of same nature as Rodent ulcer.

Symptoms. An intractable ulceration, which commences on some part of external genitals, and gradually creeps over vulvo-anal region: surrounding structures have a tendency to become hypertrophied. As ulcer heals in one direction, it extends in another: process of repair accompanied by formation of a firm burn-like cicatrix, which has a tendency to cause contraction of vaginal or anal orifice. Suffering very slight for several months: until vaginal orifice becomes fissured by it, or mouth of urethra gets involved, there is no pain during sexual intercourse or micturition. For a long time, general health not affected; menstruation occurs regularly; neither loss of strength nor flesh. But unless a cure be effected, profuse discharge ultimately proves very weakening; appetite fails; dyspepsia; attacks of colliquative diarrhœa; sometimes, hæmorrhage.

Death seldom occurs until after lapse of eight or ten years. May be due to peritonitis; erysipelas; stricture of rectum; hæmorrhage; or fatal exhaustion.

Treatment. Thorough excision; with extirpation of any tubercular excrescences, if present. Use of tents or bougies, as parts heal,

to prevent undue contraction of vaginal and anal orifices. Efficacy of potential caustics very doubtful. Nourishing food. Cod liver oil. Daily hip baths. Anodyne lotions.

If there be any suspicion of syphilitic taint,—Iodide of potassium, 31. Green iodide of mercury, 53. Red iodide of mercury, 54. Donovan's triple solution, 51. Mercurial vapour bath, 131.

VULVAL PRURITUS.—From *Vulva*, a covering: *Prurio*, to itch.—Irritation of the vulva may be simply a local affection; or a symptom of some disease,—excoriation of labia uteri, onset of carcinoma &c. Not uncommon in advanced life: sometimes troublesome during pregnancy.

Symptoms. Itching, tingling, formication, or smarting about vulva: increased by stimulants and warmth. The scratching resorted to, produces irritating excoriations and scabs about vaginal labia, perineum, vestibule, and mons Veneris. The constant annoyance causes general irritability, restlessness at night, loss of appetite &c.

Pruritus not to be confounded with irritation from prurigo, presence of lice, follicular vaginitis, eczema, or from crops of small boils.

Treatment. *Generally:*—Sulphate of soda and sulphur, 148. Sulphur and magnesia, 153. Compound powder of rhubarb. Rhubarb and blue pill, 171. Steel and sulphate of soda, 180, 181. Pepsine, 420. Nitro-hydrochloric acid, 378. Phosphoric acid and nux vomica, 376. Quinine, 379. Quinine and belladonna, 45. Tar capsules, 36. Arsenic, 52. Corrosive sublimate, 27. Colchicum, 46. Copaiba. Camphor. Tincture of Indian hemp.—Plain animal food, milk, eggs: avoidance of alcohol, tea, coffee.

Locally:—Tobacco lotion, 265. Lotion of acetate of lead and prussic acid, 263. Lotion of morphia and solution of potash, 266. Lotion of borax, morphia, and glycerine, 268. Painting vulva with mixture of equal parts of belladonna and aconite and chloroform liniments. Cod liver oil. Olive oil. Nitrate of silver. Lime liniment. Glycerine and rose water (one part to eight). Calomel ointment. Equal parts of red oxide of mercury ointment and cod liver oil. Carbonate of lead ointment. Hip baths. Vaginal injections of plain water; or of solution of lead and poppies, 425.

If there be excoriation of labia uteri it must be healed. In carcinoma, relief may be given to irritation by pessaries containing oxide of zinc and belladonna, 423.

VULVAL TUMOURS.—From *Vulva*, a covering,—or perhaps as if *Valvæ*, folding doors. Several varieties of morbid growths are met with about the vaginal labia:—

1. Encysted Tumours.—Have their origin in connective tissue of vaginal labia; or in one of lobules of vulvo-vaginal gland; or in entire gland. The tumour feels firm but elastic.

Symptoms. When about size of walnut, discomfort on walking. Pain after intercourse. Irritability of bladder. Tenderness about time of catamenial periods. Inflammation and suppuration of cyst walls may occur, converting tumour into an encysted abscess.

Treatment.—Simple incision, seldom followed by permanent cure. Excision of portion of cyst wall. Evacuation of contents, afterwards rubbing cyst walls with nitrate of silver, or iodine liniment. Introduction of seton through entire swelling. Cyst to be dissected out. Sensibility to be removed by ether spray (Richardson).

2. Fibrous Tumours &c.—Occasionally developed in one of the labia majora; more rarely about perineum. They vary in size from that of a hazel nut to that of an orange.

Fatty tumours sometimes met with in same situations. May become pediculated.

The only remedy for either form of growth is excision. Sensibility to be removed by ether spray.

3. Warty Growths.—Usually scattered about labia, nymphæ, vestibule, perineum, and around anus: sometimes appear in large clusters. They give rise to irritation, and offensive moisture.

Removal with scissors necessary. Sensibility to be destroyed with ether spray. Hæmorrhage, if any, requires application of solution of perchloride of iron. Escharotics painful and inefficient.

4. Hypertrophy of Labia.—May occur to an enormous extent: sometimes constitutes a form of elephantiasis. Enlargement often due to syphilitic taint.

Treatment. Red iodide of mercury, 54. Mercurial vapour bath, 131. Iodide of potassium, 31. Iodide of iron, 32. Excision seldom successful without constitutional treatment.

5. Abscess of Labia.—May arise from a blow, forcible sexual intercourse, irritation of gonorrhœal or acrid leucorrhœal discharges &c. Produces throbbing pain, heat and swelling, constitutional disturbance.

A free incision will be needed. Rest. Ammonia and bark, 371. Cod liver oil. Animal food.

6. Pudendal Hæmatocele.—Synon. *Labial Thrombus; Sanguineous Tumour of Vulva.*—Extravasation of blood into areolar tissue of one of the labia majora, nymphæ, or vaginal walls may occur from injury: from rupture of a vessel during parturition.

Symptoms. Considerable elastic swelling. Pain. Tumour sometimes bursts: if small, clot may be absorbed.

Treatment. Puncture; followed by application of pads and a T-bandage to prevent further hæmorrhage. Latter may also be prevented by lint saturated with solution of perchloride of iron.

VULVITIS.—From *Vulva*, a covering; terminal *-itis*. Synon. *Inflammatio Vulvæ.*—Several forms of troublesome inflammation may attack the vulva:—

1. Simple Vulvitis.—Not very uncommon from want of cleanliness, excessive intercourse, venereal taint, or irritation of adjoining structures—rectum or uterus.

Symptoms. Pain and tenderness. Swelling. Mucous discharge. Heat or scalding during micturition. Aching about loins, groins, and thighs. Constitutional disturbance.

Treatment. Seidlitz powders. Effervescing citrate of magnesia. Cold hip baths. Alum or lead lotions. Avoidance of stimulants.

2. Gangrenous Vulvitis.—Has on a few occasions prevailed as an epidemic amongst lying-in women.

Symptoms. Commence three or four days after delivery with vomiting and diarrhœa, or fever and abdominal pains, or with slight hæmorrhage. Prostration, anxiety. Œdematous redness of vulva. Disease progressing, pultaceous plates form on interior of vulva, somewhat like diphtheritic membranes. Separation of plates does not occur until end of first or second week: small suppurating wounds left. Disease may extend to uterus, causing gangrene. Peritonitis.

Treatment. Mineral acids and bark, 376. Quinine, 379. Quinine and steel, 380. Opium. Cod liver oil. Essence of beef. Milk, cream, raw eggs. Brandy or port wine. *Locally:*—Fomentations. Yeast poultices. Application of strong hydrochloric acid.

3. Follicular Inflammation of Vulva.—Synon. *Follicular Vaginitis.*—An accumulation of sebaceous matter, or an inflammation of the sebaceous follicles scattered over mucous membrane of vulva. Both sides of vaginal entrance usually affected; with tissues within nymphæ and at base of clitoris.—Very intractable. Most common during pregnancy and about change of life.

Symptoms. Parts found more or less inflamed: studded with numerous raised vascular points, sometimes having specks of ulceration on summits. Soon, the points coalesce, forming a strip of highly injected mucous membrane: subsequently, vascularity disappears, tissues looking as if covered with white paint (Oldham). Disturbance of general health. Constriction of sphincter vaginæ muscle. Leucorrhœa: irritation and smarting of genitals. Sexual intercourse very painful. Pains in back and thighs.

Treatment. *Locally:*—Avoidance of caustics and astringents. Morphia and hydrocyanic acid lotion, 266. Tobacco lotion, 265. Glycerine and lime water, 286. Lime liniment. Iodide of lead and belladonna ointment, 293. Aconitine and calomel ointment, 296. Hydrocyanic acid and atropia ointment, 306. Hemlock poultices. Warm hip baths, containing extract of poppies and soda.

Generally:—Plain nourishing food. Avoidance of seasoned dishes: tea, coffee, wine, and beer. Milk. Brandy and soda water. Arsenic and bark, 52. Mineral acids and bark, 376. Nitro-hydrochloric acid, 378. Quinine with aconite, 379. Corrosive sublimate and sarsaparilla, 27. Cod liver oil. Change of air.

4. Pudendal Erythema.—Generally from want of cleanliness, or from excessive exhalation of moisture in stout middle-aged women, the surfaces of the labia and perineum and upper part of inside of thighs become the seat of an erythematous eruption. Parts of a bright red colour: sensation of heat and great discomfort. Severe forms may end in erysipelas.

Treatment. Non-stimulating diet. Removal of any derangement of general health. Great attention to cleanliness. Bathing with

dilute solution of subacetate of lead. Dusting with oxide of zinc, or powdered spermaceti. Fuller's earth, a common domestic remedy.

5. Infantile Leucorrhœa.—An irritation or subacute inflammation of mucous glands of vulva, producing a muco-purulent or purulent discharge.—May occur from irritation of worms or teething: sometimes as a complication during progress of one of eruptive fevers.

Symptoms. Derangement of general health: children often strumous, badly fed &c. There may be only a mucous discharge, with irritation of surrounding parts: if disease extend up vagina, profuse purulent discharge, heat and pain during micturition, excoriation of surrounding parts, perhaps aphthous ulceration. Caution necessary, lest disease be wrongly attributed to gonorrhœal infection, or to violence in attempting a rape.—Fatal sloughing, or gangrenous ulceration of vulva, very rare.—In diphtheritic vulvitis, tough false membranes formed on inner surface of labia. Effects of diphtheritic poison very seldom confined to vulva.—Scarlatinal vaginitis, attended with exfoliation of patches of epithelium.

Treatment. Plain nourishing food: milk. Bark. Quinine and steel. Cod liver oil. Glycerine. Chemical food, 405. Chlorate of potash. Warm hip baths. Fomentations. Alum or subacetate of lead lotions. Sea bathing.

WASTING PALSY.—A degeneration of the voluntary muscles, producing complete loss of power.—See *Paralysis.*

WEIGHT OF BODY.—The following table shows the normal weight in proportion to height. Loss of weight an early symptom in phthisis. A slow and gradual fall, more serious than a rapid and irregular diminution: *a steady loss always precedes tuberculosis* (Dr. Hutchinson):—

Exact Stature.	*Mean Weight.*	*Weight increased by 7 per Cent.*
Ft. in.	St. lbs. lbs.	St. lbs. lbs.
5 1	8 8 or 120	9 2 or 128
5 2	9 0 „ 126	9 9 „ 135
5 3	9 7 „ 133	10 2 „ 142
5 4	9 13 „ 139	10 9 „ 149
5 5	10 2 „ 142	10 12 „ 152
5 6	10 5 „ 145	11 1 „ 155
5 7	10 8 „ 148	11 4 „ 158
5 8	11 1 „ 155	11 12 „ 166
5 9	11 8 „ 162	12 5 „ 173
5 10	12 1 „ 169	12 13 „ 181
5 11	12 6 „ 174	13 4 „ 186
6 0	12 10 „ 178	13 8 „ 190

This reads:—A man of 5 ft. 8 in. should weigh, in his clothes, 11 st. 1 lb. or 155 lb. (14 lb. = 1 stone); he may exceed this by 7 per cent., and so attain 11 st. 12 lb., or 166 lb., without affecting his vital capacity; beyond this amount his respiration becomes diminished. According to M. Quetelet the average weight of the clothes at different

ages is one-eighteenth of the total weight of male body, and one-twenty-fourth of that of female.

WRY-NECK.—Synon. *Torticollis.*—A distortion, in which the head is drawn down to one side (often the right), and the face directed to the opposite. Due to contraction of one sterno-mastoid muscle. Paralysis of one muscle, allows the other to overpower its fellow. Inflammation, or rheumatic spasm of one muscle may cause it to contract unduly. Sometimes the affection is owing to lateral curvature of spine; to caries of cervical vertebræ; to tumours and enlargement of cervical glands on one side; or to contraction of cicatrix left by a burn or ulcer.

Treatment. *Inflammatory or rheumatic variety:*—Rest. Fomentations or hot bathing. Turkish bath. Ammonia and bark. Aconite or belladonna. Iodide of potassium with tincture of actea racemosa. *Permanent form:*—Apparatus to produce and maintain extension. Division of cicatrix, if present. Subcutaneous division of sternal or clavicular attachments of muscle, or of both.—*Paralytic variety:*—Friction, blisters, irritating liniments, or galvanism to palsied muscle. Tenotomy on sound side sometimes recommended. Improvement of general health.

YELLOW FEVER.—Synon. *Pestilentia Hæmagastrica; Bulam Fever; Mal de Siam; Typhus Icterodes; Bilious Remitting Yellow Fever; Black Vomit; Yellow Jack.*—An acute and very dangerous fever; accompanied with jaundice, severe headache, and vomiting of black matter. Almost limited to warm climates. Not of unfrequent occurrence in sea-port towns of the West Indies, Africa, southern parts of Spain. May occur sporadically or epidemically. Probably infectious. Male sex much more obnoxious to the morbid poison than the female.

Symptoms. Often commence suddenly with languor, loss of appetite, giddiness, headache, mental depression. Sometimes begin with coldness of the surface, or distinct rigors; followed by fever which continues for a few hours. In a third class of cases, there is prostration from the first, without febrile reaction; stupor, coma, and convulsions soon following. When there is decided fever, it generally becomes aggravated towards night: pulse gets quick, skin hot and dry, eyes congested and painful, face flushed. Distressing headache; perhaps confined to one temple. Pains in back and limbs; in large joints. Irritability of stomach: tenderness on pressure; sense of tightness about præcordia; nausea, followed after a few hours by constant vomiting and retching. Thirst, with desire for cold drinks. Urine diminished in quantity; of a dark-red colour. Constipation; stools free from bile. Distressing restlessness; mental anxiety; sleeplessness; perhaps, active delirium.—At the end of second or third day, severity of symptoms greatly diminishes: patient feels much relieved: face gets slightly jaundiced: skin becomes moist, and there are copious bilious stools. In favourable cases, convalescence firmly established. More frequently, improvement of short

duration. After some twenty-four hours, epigastric tenderness is aggravated: jaundice increases and spreads over body: tendency to stupor: pulse becomes feeble, irregular, and slow — perhaps as low as thirty beats in the minute: tongue gets foul and dry: respiration embarrassed: hiccough, thirst, nausea, vomiting &c. are constant. Unless symptoms remit, grumous blood is vomited—black vomit: urine is suppressed or simply retained: skin becomes of a dark-brown hue: dark-coloured blood effused in patches under skin, or exudes from nose, gums, anus, vagina &c.: most offensive tarry-looking stools. There are now all the features of a most malignant fever: almost imperceptible pulse; slow or stertorous breathing; involuntary evacuations; difficulty of deglutition and articulation; suppressed or bloody urine; with formation of buboes or patches of gangrene. Death takes place, preceded by coma or convulsions; or patient retains consciousness to the close.

Usual duration from 3 to 9 days. Mortality about 1 in 3. Death from overpowering effect of poison on the system, exhaustion, uræmia, or apoplexy.

Treatment. *Prophylactic:*—Removal of all nuisances: thorough ventilation and fumigation of narrow courts, cellars, docks, holds of ships &c. Cleanliness on board ship: pumping out of foul bilge water.—Individuals exposed to risk, to live on plain nourishing food, avoiding the abuse of alcoholic drinks and sexual excesses: to have a due amount of sleep: to promote healthy action of skin, kidneys, intestinal canal: to have warm clothing: not to venture out early in the morning with the stomach empty. The special efficacy of strong coffee, quinine, and inunction with lard or oil, doubtful.

Curative:—From the commencement until convalescence is firmly established the recumbent posture to be strictly maintained: bed to be placed in centre of well-ventilated room: great attention to be paid to cleanliness. The indications presented by the urgent symptoms to be observed. The disease cannot be cured, but the patient may be guided through it. Simple diet;—Arrowroot, barley water, ice and iced water, tea, lemonade, broth, champagne, spruce, seltzer water, brandy and water. Podophyllum. Sulphate of magnesia and senna. Calomel with quinine, or jalap. Quinine. Bark. Sulphate of beberia. Tincture of perchloride of iron. Nitro-hydrochloric acid. Morphia, in a small dose. Turpentine. Creasote. Liquor potassæ.

Blisters or sinapisms to nucha. Cold to the head. Compression of the temporal arteries, for relief of cephalalgia. Prolonged use of warm bath, or of wet sheet. Sinapisms or turpentine stupes to epigastrium. Venesection: if at all, only in early stage.

Avoidance of ammonia; the blood often strongly ammoniacal. Alcoholic stimulants to be used cautiously, when kidneys are much congested.

ZONA.—From *Zona*, a belt. Synon. *Herpes Zoster; Shingles.*—That form of herpes in which the vesicles, with their inflamed patches, are arranged in the form of a band encircling half the circumference of the body.—See *Herpes.*

APPENDIX OF FORMULÆ.

In prescribing a medicine, attention must be paid to the following points: Age, Sex, Temperament, Habit, Condition of System, Climate, and Season of the Year. The operation of most drugs is materially influenced by the form in which the medicine is given, the purity of the preparation, the time of day at which the dose is taken, and the condition of the stomach as regards the presence or absence of food. The succeeding formulæ are for Adults, unless the contrary is stated. The doses may, except in the case of mercurials and narcotics, be reduced by attention to this table:—

For an adult, suppose the dose to be	. . .	1	or gr. 60.
Under 1 year, will require only	. . . . .	1-12th	or gr. 5.
„ 2 „ „	. . . . .	1-8th	or gr. $7\frac{1}{2}$.
„ 3 „ „	. . . . .	1-6th	or gr. 10.
„ 4 „ „	. . . . .	1-4th	or gr. 15.
„ 7 „ „	. . . . .	1-3rd	or gr. 20.
„ 14 „ „	. . . . .	1-half	or gr. 30.
„ 20 „ „	. . . . .	2-3rds	or gr. 40.

Above 21, the full dose.

„ 65, the dose must be diminished in the inverse gradation of the above.

Children bear as large doses of mercury as adults; but they are much more susceptible to the influence of opiates. Consequently, opium must be given in very minute doses to them. Females, also, from their more delicate organization and greater sensitiveness, require smaller quantities of powerful medicines than males. This is particularly the case during the periods of menstruation, pregnancy, and lactation.

The skill of the physician is shown by the administration of the proper remedy, in the proper quantity, at the proper time. A druggist's apprentice can tell what agents will purge, vomit, or sweat; but a man must be practically conversant with disease to be able rightly to apply his therapeutical resources to the exigencies of any particular case. Instead of introducing medicines into the system by the stomach it is often more advisable to do so by the rectum, or by the skin, or by the lungs, or by injection into the areolar tissue. Absorption takes place from the rectum as speedily and surely as from the stomach; and hence purgatives, emetics, narcotics, tonics, and nutrients may be admirably administered as enemata. The skin offers a mechanical impediment to absorption; but still poultices and fomentations, plasters, liniments and ointments, and medicated vapour or water baths are all valuable remedies. If the cuticle be removed by a

blister, and the medicine applied to the denuded dermis in its pure state or incorporated with lard or mucilage, its action will be rapid. The system is quickly and thoroughly affected by the inhalation of medicated vapours, or of substances reduced to an impalpable powder. Subcutaneous injections must be employed with great caution; since by this plan none of the medicine is lost, neither is it altered or diluted by the contents of the stomach, as happens when drugs are taken by the mouth.—In only exceptional cases can there be any advantage in procuring absorption through the conjunctiva, the nasal or pituitary membrane, or the mucous coat of the vagina; but in these exceptional cases the benefit is often very great.—Injection into the veins is too dangerous to allow of its being practised except as a last resource in grave diseases,—such as epidemic cholera, &c.

The practitioner will do well to bear in mind the following rules:—(1) When a disease is progressing favourably towards recovery, it is unwise to interfere with the efforts of Nature by the administration of drugs. The end and aim of treatment is not only to restore health, but to do so safely, speedily, and pleasantly.—(2) Where drugs are needed, and there is a choice of remedies, employ that one which will be the least distressing at the time, and subsequently the least injurious to the constitution.—(3) Put the medicine in that form in which it can be most easily taken. When possible—especially with children—cover the disagreeable taste of the draught by syrups, &c.—(4) If there be an idiosyncrasy with respect to any special medicine—such as mercury, opium, turpentine, &c.—avoid administering it. That a peculiarity of constitution, causing an extreme susceptibility to the influence of certain drugs, foods, and odours sometimes exists, cannot be disputed. It is as certain that it can seldom be safely combated. (5) Attend to the condition under which the patient will be at the period of the medicine's action; *e.g.*, it will be worse than useless to give a sudorific to an individual obliged to be in the open air soon after taking it.—(6) Be careful that the various agents in the prescription are not incompatible with each other, unless it be desired to form some new or particular compound. Chemical incompatibility, however, is by no means synonymous with therapeutic inertness; for experience tells us that certain unchemical compounds—bichloride of mercury and tincture of bark, gallic acid and tincture of opium, calomel and Dover's powder, &c.—are all valuable preparations in curing diseases.—(7) Remember that if a disease be incurable, it may still admit of great alleviation. Hence it is cruel to give up any case; although, at the same time, the patient is not to be deceived by false promises.—(8) Never order, or sanction the use of, a quack medicine; *i.e.*, one, the composition of which is kept a secret.—(9) Bearing in mind the weakness of human nature, and the prejudices and superstitions which are current, it is not only necessary to give good advice, but pains must be taken so to impress the patient and attendants that the necessary treatment may be thoroughly carried out. *Hope* and *confidence* are no mean remedial agents; and in many chronic diseases at least, the individual who has *faith* will recover more speedily, cæteris paribus, than he who is shy of belief.—(10) Simply to prescribe drugs, without regulating the diet and general management of the patient, is to omit a most important duty. In acute diseases plain directions must be given as to the ventilation and warmth of the sick-room, the amount of light, the position of the bed (not to be placed in a corner), the degree of quiet to be maintained, the cleanliness of the sufferer, and the nature and quantity and times for administration of food. In cases of long illness, when the patient can be moved without risk, it is often desirable to have two beds in the room,—one to be occupied during the day, the other at night. Every precaution must be

taken to prevent the spread of infectious disorders. And, in all instances, the evacuations ought to be passed in a bed-pan or night-stool containing some disinfectant fluid.—(11) While it is allowed that the following formulæ may often be employed unaltered with great advantage, yet it is not supposed that they will usually be prescribed with servile exactness; for it must never be forgotten that all medicines of any power have to be adapted to the requirements of the special case under treatment. It has been quaintly but truly observed, that a bundle of ready-made receipts in the hands of the routine practitioner, is but a well-equipped quiver on the back of an unskilful archer.—And (12) In watching the restoration of a sick man to health, do not attribute the improvement too confidently to the action of the medicine prescribed; for it may not have been taken, or it may not have been absorbed, or its properties may have been destroyed by adulteration, or it may have even proved injurious—recovery occurring in spite of it.

The succeeding formulæ have been written in accordance with the rules, preparations, &c. of the *British Pharmacopœia*. For the sake of convenience they are arranged in twenty classes.—See *Formulæ* in Tabular Synopsis.

I. ALIMENTS.

Formula 1. *Extract of Beef.*

Take one pound of rumpsteak, mince it like sausage meat, and mix it with one pint of cold water. Place it in a pot at the side of the fire, to heat very slowly. It may stand two or three hours before it is allowed to simmer, and then let it boil gently for fifteen minutes. Skim and serve. The addition of a small tablespoonful of cream to a teacupful of this beef tea renders it richer but more nourishing. Sometimes it is preferred when thickened with a little flour or arrowroot.

2. *Restorative Soup for Invalids.*

Take 1 lb. of newly killed beef or fowl, chop it fine, add eight fluid ounces of soft or distilled water, four or six drops of pure hydrochloric acid, 30 to 60 grs. of common salt, and stir well together. After three hours the whole is to be thrown on a conical hair sieve, and the fluid allowed to pass through with slight pressure. On the flesh residue in the sieve pour slowly two ounces of distilled water, and let it run through while squeezing the meat. There will be thus obtained about ten fluid ounces of cold juice (cold extract of flesh), of a red colour, and possessing a pleasant taste of soup; of which a wineglassful may be taken at pleasure. It must not be warmed (at least, not to a greater extent than can be effected by partially filling a bottle with it, and standing this in hot water); since it is rendered muddy by heat or by alcohol, and deposits a thick coagulum of albumen with the colouring matter of blood.—If, from any special circumstance (such as a free secretion of gastric juice) it is deemed undesirable to administer an acid, the soup may be well-prepared by merely soaking the minced meat in plain distilled water.—Children will frequently take the raw meat simply minced, when they are suffering from great debility. One teaspoonful of such meat may be given every three or four hours.

This modification of LIEBIG'S *formula is very valuable in cases of continued fever, in dysentery, and indeed in all diseases attended with great prostration*

and weakness of the digestive organs. When the flavour is thought disagreeable, it may be concealed by the addition of spice, or of a wineglassful of claret to each teacupful of soup.

3. *Essence of Beef.*

Take one pound of gravy-beef, free from skin and fat, chop it up as fine as mincemeat, and pound it in a mortar with two tablespoonfuls of soft water. Then put it into a covered earthen jar with a little salt, cementing the edges of the cover with pudding paste. Place the jar in an oven, or tie it tightly in a cloth and plunge it into a pot of boiling water for three hours. Strain off (through a coarse sieve, so as to allow the smaller particles of meat to pass) the liquid essence, which will amount to about two ounces in quantity. Give two or more teaspoonfuls frequently. *In great debility, diphtheria, exhaustion from hæmorrhage &c.*

4. *Liebig's Food for Infants and Invalids.*

Half an ounce of wheaten flour (that called "seconds" is the most suitable), an equal quantity of malt flour, 7¼ grains of bicarbonate of potash, and an ounce of water, are to be well mixed. Add five ounces of cow's milk, and put the whole on a gentle fire. When the mixture begins to thicken it is to be removed from the fire, stirred for five minutes, heated and stirred again till it becomes quite fluid, and finally made to boil. After separating the bran by passing the mixture through a sieve, it is ready for use.

To save the trouble of weighing, it may be remembered that a tablespoonful (heaped up) of wheaten flour weighs nearly half an ounce, and a heaped dessertspoonful of malt flour is equal to the same. This soup is as sweet as milk; and after boiling, may be kept for 24 hours without undergoing any change.—This is an excellent food for infants who cannot be suckled. It is slightly aperient; so that children under one year of age can seldom take more than two meals of it in the day. Where there is a tendency to diarrhœa, twenty grains of prepared chalk may be substituted for the potash. The proportion of blood-forming and heat-producing elements is the same as in women's milk (1 : 3.8); while the quantity of alkali is equivalent to that in human milk.

The solid parts of this food are sold, ready mixed in packets, by Mr. Hooper of Pall-mall East and Grosvenor-street, Mr. Cooper of 26 Oxford-street, as well as by many other chemists.

5. *Eggs, Cream, and Extract of Beef.*

Wash two ounces of the best pearl sago until the water poured from it is clear. Then stew the sago in half a pint of water until it is quite tender and very thick: mix with it half a pint of good boiling cream and the yolks of four fresh eggs, and mingle the whole carefully with one quart of good beef-tea, which should be boiling. Serve. *This nourishing broth is very useful in many cases of lingering convalescence after acute disease.*

6. *Mutton or Veal Broth—Beef Tea.*

Take of mutton or veal or beef one pound and a half, cold water one quart, a little salt, and rice two ounces. Simmer for four hours, boil for a few minutes, strain and serve. Another excellent plan for making beef-tea is as follows:—Take one pound of beef minced very fine, and put it into a common earthenware tea-pot with a pint and a half of cold water. Stand the pot on the hob, so that it may simmer for at least three hours. About three-quarters of a pint of good beef-tea will be thus obtained.

Beef-tea as ordinarily made, and preserved meat juice of all kinds, are palatable but not very nutritive drinks. A pint of fine beef-tea contains scarcely a quarter of an ounce of anything but water. Nevertheless, if these fluids are of small value as mere nutrients, perhaps the osmazome and salts they contain may possess the property (like tea and coffee) of diminishing the waste of the tissues. It has been proved that dogs die slowly if fed on bread and gelatine alone; but when greatly reduced by this diet they soon regain flesh and strength if two ounces of meat-tea be daily added to it.

Gruel and beef tea is nourishing. It is made thus:—Take two tablespoonfuls of oatmeal with three of cold water, and mix them thoroughly. Then add a pint of strong boiling beef-tea (or of milk); boil for five minutes, stirring well to prevent the oatmeal from burning; and strain through a hair sieve.—*An excellent simple restorative during convalescence from acute disease before solid food can be taken.*

7. *Spruce Beer.*

The essence of spruce is prepared by boiling down to concentration the young branches of the Black Spruce Fir (Abies Nigra). Take of this essence half a pint; bruised pimento and ginger, of each four ounces; water three gallons. Boil for five or ten minutes; then strain, and add eleven gallons of warm water, a pint of yeast, and six pints of molasses. Mix, and allow the mixture to ferment for twenty-four hours. *It is an admirable antiscorbutic, and is an agreeable and wholesome drink in warm weather. This drink was found very efficacious by* Captain Cook. Dr. Robert Barnes *suggests that it should be used in the Merchant Service instead of rum, which has no antiscorbutic virtue.*

8. *Tapioca and Cod Liver.*

Boil a quarter of a pound of tapioca till tender, in two quarts of water; drain it in a cullender, then put it back in the pan; season with a little salt and pepper, add half a pint of milk, and put over one pound of fresh cod liver cut in eight pieces. Set the pan near the fire to simmer slowly for half an hour, or a little more, till the liver is quite cooked. Press on it with a spoon, so as to get as much oil into the tapioca as possible. After taking away the liver, mix the tapioca. If too thick, add a little milk, then boil it a few minutes; stir round, add a little salt and pepper, and serve.—Alexis Soyer. *Tapioca thus cooked is nourishing and easily digested.*

9. *The Bran Loaf.*

The formula used by Mr. Camplin, in *Diabetes*, is as follows:—Take a sufficient quantity (say two or three quarts) of wheat bran, boil it in two successive waters for ten minutes, each time straining it through a sieve, then wash it well with cold water (on the sieve), until the water runs off perfectly clear; squeeze the bran in a cloth as dry as possible, then spread it thinly on a dish, and place it in a slow oven—if put in at night, let it remain until the morning, when, if perfectly dry and crisp, it will be fit for grinding. The bran thus prepared must be ground in a fine mill, and sifted through a wire sieve of sufficient fineness to require the use of a brush to pass it through; that which does not pass at first ought to be ground and sifted again, until the whole is soft and fine.

Take of this bran-powder three ounces troy, three fresh eggs, one ounce and a half of butter, and rather less than half a pint of milk; mix the eggs with part of the milk, and warm the butter with the other portion;

then stir the whole well together, adding a little nutmeg and ginger, or any other agreeable spice. Immediately before putting into the oven, stir in first thirty-five grains of sesquicarbonate of soda, and then three drachms of dilute hydrochloric acid. The loaf thus prepared should be baked in a basin (previously well buttered) for about an hour or rather more.

Biscuits may be prepared as above, omitting the soda and hydrochloric acid, and part of the milk, and making them of proper consistence for moulding into shape.

If properly baked, the loaves or biscuits will keep several days, but should always be preserved in a dry place, and not be prepared in too large quantities at a time.

10. *White Wine Whey.*

To half a pint of boiling milk, add one or two wineglassfuls of sherry or Madeira. The curd is to be separated by straining through a fine sieve or piece of muslin. Sweeten the whey with refined sugar.

11. *Caudle.*

Beat up one egg with a wineglassful of sherry, and add it to half a pint of fine hot gruel. Flavour with sugar, nutmeg, and lemon peel. *In insomnia with debility.*

Beat up two tablespoonfuls of cream in a pint of thin cold gruel. Add to this one tablespoonful of curaçoa or noyeau, and a wineglassful of sherry. Flavour with sugar candy, and let half a tumblerful be taken, cold, at intervals.

12. *Ferruginous Chocolate.*

Spanish chocolate 16 oz.; carbonate of iron half an ounce. Divide into one-ounce cakes. One to be dissolved in half a pint of hot milk, and taken night and morning. *In anæmia, amenorrhœa &c.*

13. *Iceland Moss and Quinine Jelly.*

Take of Iceland moss (Cetraria), and Irish moss (Chondrus crispus, Carragheen), each one ounce. Boil slowly for three-quarters of an hour in a pint and a half of milk, strain through muslin, and add three ounces of white sugar dissolved in one ounce of the compound tincture of quinia (equal to eight grains of the salt). A dessertspoonful to be taken frequently in the course of the day. *In phthisis, tabes mesenterica &c.*

14. *Lime Water and Milk.*

℞. Liquoris Calcis Saccharati, fl. drs. j—iv; Lactis, ad fl. oz. 4. Mix. *This compound will sometimes be retained when all other food is ejected. As a variety, milk and soda-water, in equal proportions, may also be ordered.* See F. 73.

It may be well to remember that the addition of grs. 15 of Bicarbonate of Soda to the quart of milk not only prevents it from turning sour, but renders it more digestible.

15. *Artificial Ass's and Goat's Milk.*

Take half an ounce of gelatine, and dissolve it in half a pint of hot barley water. Then add an ounce of refined sugar, and pour into the mixture a pint of good new cow's milk.

Chop an ounce of suet very fine, tie it lightly in a muslin bag, and boil it slowly in a quart of new milk. Sweeten with white sugar, or a glass of

any liqueur. *An excellent aliment in some cases of tabes mesenterica &c. where the unpleasant odour of goat's milk prevents its being taken.*

16. *Milk, Flour, and Steel.*

Beat up carefully one tablespoonful of flour, one raw egg, and about twenty grains of the saccharated carbonate of iron, with half a pint of new milk: flavour with nutmeg and white sugar. To be taken for lunch with a biscuit. *In the early stages of tuberculosis the Author has found this mixture very valuable.*

17. *Brandy and Egg Mixture.*

Take the whites and yolks of three eggs and beat them up in four ounces of plain water. Add slowly three or four ounces of brandy, with a little sugar and nutmeg. This form is preferable to that in the London Pharmacopœia for 1851. Two tablespoonfuls should be given every four or six hours. In some cases of great prostration the efficacy of the mixture is much increased by the addition of one drachm of the tincture of yellow cinchona to each dose.

18. *Bread Jelly.*

Take a quantity of the soft part of a loaf, break it up, cover it with boiling water, and allow it to soak for some hours. The water—containing all the noxious matters with which the bread may be adulterated—is then to be strained off completely, and fresh water added; place the mixture on the fire, and allow it to boil for some time until it becomes smooth; the water is then to be pressed out, and the bread on cooling will form a thick jelly. Mix a portion of this with sugared milk and water, for use as it is wanted.—Dr. Churchill. *A good food for infants at the time of weaning, for children with acute disease &c.*

19. *Nutritious Demulcent Drinks.*

Mix together half a pint of Mucilago Acaciæ, Mistura Amygdalæ, and pure milk; sweeten with sugar-candy or honey; and add one large tablespoonful of any liqueur. Allow the whole to be taken during the day.—Or, a large pinch of isinglass may be boiled with a tumblerful of milk, half a dozen bruised almonds, and two or three lumps of sugar. To be taken warm once or twice in the day.

These drinks are very grateful in cases of tonsillitis, ulceration of the pharynx &c.; also in some cases of debility, with irritability of the stomach, and a tendency to diarrhœa.

20. *Indian Sarsaparilla and Barley Water.*

℞. Syrupi Hemidesmi, fl. oz. ij; Glycerini, fl. oz. j; Decocti Hordei, fl. oz. ix. Mix, and direct two tablespoonfuls to be taken frequently. *An agreeable demulcent, slightly alterative, and diaphoretic mixture. Useful in the eruptive fevers, and in inflammations of the mucous membranes.*

21. *Beef Tea and Cream Enemata.*

An excellent nutritious enema may be made by mixing together from four to eight ounces of strong beef tea, an ounce of cream, and half an ounce of brandy or an ounce and a half of port wine. It may be administered twice or thrice in the course of twenty-four hours. *In cases of acute gastritis, carcinoma of the stomach, obstinate vomiting &c., where it is necessary to avoid giving food by the mouth.*

Another form may run thus:—Take four or six ounces of restora-

tive soup (F. 2), one ounce of cream, two teaspoonfuls of brandy, ten or fifteen minims of liquid extract of opium, and ten grains of citrate of iron and quinia.

22. *Cod-Liver Oil and Bark Enema.*

Take four ounces of essence of beef (F. 3), two ounces of port wine, an ounce of cod liver oil, two drachms of tincture of yellow cinchona, and twenty minims of liquid extract of opium. Mix. To be administered every twelve hours.

23. *Quinine and Beef Enema.*

Take one tablespoonful of brandy, five grains of sulphate of quinia, one teaspoonful of glycerine, two tablespoonfuls of cream, and from four to eight ounces of restorative soup (F. 2). Mix. This enema may be administered every six or eight hours. Where the rectum is very irritable, or it is necessary to relieve pain, from fifteen to twenty minims of the liquid extract of opium may be advantageously added.

II. ALTERATIVES AND RESOLVENTS.

24. *Compound Pill of Calomel and Opium.*

℞. Pilulæ Calomelanos Compositæ, gr. 5; Extracti Opii, gr. ½. Make a pill, and direct it to be taken every night, or night and morning. *In disorders dependent on a venereal taint.*

25. *Calomel and Opium.*

℞. Calomelanos, gr. 2; Pulveris Opii, gr. ¼; Confectionis Rosæ Gallicæ, sufficient to make a pill. To be taken every four hours. *As an alterative, when it is wished to get the system quickly under the influence of mercury.*

26. *Mercury and Conium.*

℞. Hydrargyri cum Cretâ, gr. 2; Extracti Conii, gr. 3. Mix, and form a pill to be taken three times a day. *In syphilitic tubercular diseases.*

27. *Corrosive Sublimate.*

℞. Hydrargyri Corrosivi Sublimati, gr. 1; Ammoniæ Hydrochloratis, gr. 5; Extracti Sarsæ Liquidi, fl. drs. xij; Decocti Sarsæ Compositi, ad fl. oz. xij. Mix. Direct,—"Two small tablespoonfuls to be taken three times a day."—*In confirmed constitutional syphilis; as well as in some forms of eczema, prurigo, follicular vaginitis, chronic metritis, &c.*

℞. Hydrargyri Corrosivi Sublimati, gr. 1; Glycerini, fl. oz. j; Tincturæ Cinchonæ Compositæ, ad fl. oz. iij; Olei Menthæ Piperitæ, min. xxv. Mix. Direct,—"One teaspoonful in a wineglassful of water three times a day." *In constitutional syphilis, and some forms of hæmorrhage.*

℞. Hydrargyri Corrosivi Sublimati, gr. 1; Extracti Opii, gr. 3—6; Guaiaci Resinæ, gr. 100; Glycerini, sufficient to make a mass. Divide carefully into twenty-four pills, and order two to be taken three times a day. *In some varieties of chronic rheumatism.*

28. *Mercury, Squills, and Digitalis.*

℞. Pilulæ Hydrargyri, gr. 3; Pulveris Digitalis, gr. ½; Pulveris Scillæ, gr. 1½. Mix, and form a pill to be taken twice or three times a day. *As an alterative and diuretic, in some cases of dropsy.*

29. *Bromide of Mercury and Sarsaparilla.*

℞. Hydrargyri Bromidi, gr. ½; Extracti Sarsæ Liquidi, fl. drs. ij; Decocti Sarsæ Compositi, ad fl. oz. iss. Mix. To be taken three times a day. *In syphilitic lepra, and secondary syphilitic eruptions.*

30. *Podophyllum Peltatum, or May-apple.*

℞. Podophylli Resinæ, gr. ⅙—⅓; Pulveris Ipecacuanhæ, gr. ½; Extracti Gentianæ, gr. 3. Mix. Make a pill, to be taken twice or thrice daily. *In syphilis, scrofula, jaundice from suppression, skin diseases &c. As a simple alterative it is perhaps as valuable as mercury, without possessing any injurious qualities. One or two grains of quinine may be advantageously added to each pill, where there is general debility.* See F. 160.

31. *Iodide of Potassium Mixtures.*

℞. Potassii Iodidi, gr. 20—30; Tincturæ Serpentariæ, fl. drs. iij; Misturæ Guaiaci, ad fl. oz. viij. Mix. One-sixth part to be taken three times a day. *Valuable in chronic rheumatism, and in acute tonsillitis.*

℞. Potassii Iodidi, gr. 20; Liquoris Potassæ, fl. drs. ij; Tincturæ Hyoscyami, fl. drs. iij; Infusi Cinchonæ Flavæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In chronic rheumatism with an abundance of lithates in the urine; as well as in some cases of eczema &c.*

℞. Potassii Iodidi, gr. 2; Vini Colchici, min. xv; Tincturæ Aconiti, min. iij—viij; Infusi Rhei, fl. oz. j. Make a draught, to be taken three times a day. *In chronic gout.*

℞. Potassii Iodidi, gr. 3—5; Spiritûs Ammoniæ Aromatici, min. xxx; Tincturæ Belladonnæ, min. v—xv; Tincturæ Cinchonæ Compositæ, fl. drm. j; Aquæ Menthæ Piperitæ, ad fl. oz. iss. Make a draught. To be taken three times a day. *In some cases of asthma the Author has found remarkable benefit from this formula.*

℞. Potassii Iodidi, gr. 15—30; Vini Colchici, fl. drs. iss; Tincturæ Hyoscyami, fl. drs. ij; Magnesiæ Sulphatis, gr. 220; Infusi Anthemidis, ad fl. oz. viij. Mix. One-sixth part three times a day. *In some instances of gout with fever and constipation, and in chronic pleurisy with effusion. Also in cases of lead and mercurial poisoning occurring in gouty subjects.*

℞. Potassii Iodidi, gr. 40; Tincturæ Rhei, fl. oz. j; Extracti Sarsæ Liquidi, fl. oz. ij. Mix. Label,—"A small teaspoonful in a wineglassful of water three times a day." *In follicular inflammation of the pharyngo-laryngeal mucous membrane &c.*

℞. Potassii Iodidi, gr. 30—120; Glycerini, fl. oz. j; Tincturæ Aconiti, min. xx; Vini Ipecacuanhæ, fl. drs. iss; Succi Taraxaci, fl. drs. vj; Decocti Sarsæ Compositi, ad fl. oz. viij. Mix. One-sixth part three times a day. *In severe gonorrhœal rheumatism, constitutional syphilis, bronchocele, scrofulous sores, aneurism &c.*

℞. Potassii Iodidi, gr. 15; Tincturæ Assafœtidæ, fl. drs. iss; Tincturæ Senegæ, fl. drs. iij; Syrupi Mori, ad fl. oz. iij. Mix. Label,—"One teaspoonful every two, three, or four hours." *For a child about two years old, suffering from croup. Also in cases of infantile pneumonia.*

32. *Iodide of Iron Mixtures.*

℞. Ferri Iodidi, gr. 6—18; Glycerini, fl. drs. xij; Infusi Calumbæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In the early*

stages of tuberculosis, and in strumous ulcers, where the stomach will not tolerate cod-liver oil.

℞. Potassii Iodidi, gr. 30; Ferri et Ammoniæ Citratis, gr. 60; Aquæ Destillatæ, fl. drs. ij; Glycerini, fl. drs. vj; Olei Menthæ Piperitæ, min. x; Olei Morrhuæ, ad fl. oz. vj. Mix. One tablespoonful after the two chief meals of the day.

℞. Potassii Iodidi, gr. 12; Ferri et Quiniæ Citratis, gr. 30; Tincturæ Aconiti, min. xxv; Infusi Chiratæ, fl. oz. vj. Mix. One-sixth part three times a day. *In chronic rheumatism with debility &c.*

℞. Tincturæ Ferri Perchloridi, Tincturæ Iodi, āā min. x; Aquæ Camphoræ, fl. oz. j. Make a draught, to be taken three times a day. *Useful in strumous affections of the cervical glands, mesenteric disease, and some cutaneous disorders.*

℞. Syrupi Ferri Iodidi, Extracti Sarsæ Liquidi, āā fl. oz. j. Mix. Direct,—"One teaspoonful in two tablespoonfuls of water three times a day." *In chronic rheumatism, old-standing venereal affections &c.*

℞. Potassii Iodidi, gr. 2—6; Ferri et Ammoniæ Citratis, gr. 20; Syrupi Papaveris, fl. drs. iij; Infusi Quassiæ, ad fl. oz. iv. Mix. One tablespoonful three times a day. *For children with tabes mesenterica. Useful also for strumous subjects who have had ascarides.*

33. *Iodide of Potassium and Mercury.*

℞. Ammoniæ Carbonatis, gr. 30; Potassii Iodidi, gr. 20; Tincturæ Aconiti, min. xxx; Tincturæ Cinchonæ Flavæ, fl. drs. vj; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. Direct,—"One-sixth part three times a day, viz. at 9 a.m., 2 p.m., and 7 p.m."

℞. Hydrargyri Iodidi Viride, gr. 2; Extracti Opii, gr. 1; Extracti Hyoscyami, gr. 6. Mix, divide into two pills, and order one to be taken every night at 11 o'clock as long as the mixture is continued. *Very useful in many forms of constitutional syphilis.*

34. *Mercury and Chalk, with Dover's Powder &c.*

℞. Hydrargyri cum Cretâ, Pulveris Ipecacuanhæ cum Opio, āā gr. 5. Mix, and make a powder to be taken every eight or twelve hours. *In diarrhœa with unhealthy secretions, and in mild dysentery.*

℞. Sodæ Bicarbonatis, Hydrargyri cum Cretâ, āā gr. 2; Magnesiæ Carbonatis, gr. 5. Mix, and make a powder to be taken every other night. *An alterative and aperient for children, where there is great acidity of the secretions.*

35. *Chloride of Calcium.*

℞. Liquoris Calcii Chloridi (Phar. Dub.), fl. oz. j; Tincturæ Aurantii, fl. oz. ij. Mix. One teaspoonful in a wineglassful of water three times a day. *As a liquefacient in scrofula, tabes mesenterica, bronchocele, fibroid tumours of uterus &c.*

36. *Tar Pills and Capsules.*

℞. Picis Liquidæ, oz. 1; Pulveris Aromatici, oz. ½. Mix, divide into five-grain pills, and order two or three to be taken three times a day.

TAR CAPSULES are made, each containing about six grains. Two or three may be taken for each dose. *In some chronic skin diseases, pruritus of the anus, and chronic catarrhal affections.*

37. *Bromide of Ammonium.*

℞. Ammonii Bromidi, gr. 12—60; Infusi Aurantii, fl. oz. viij. Mix. Direct,—"One-sixth part to be taken three times a day, an hour before meals." *Recommended by* Dr. Gibb *for diseases in which the nervous system is functionally involved,—as epilepsy &c. It is a valuable absorbent in glandular enlargements, and in excessive corpulency; while it has also a peculiar soothing influence upon the mucous membranes.*

℞. Ammonii Bromidi, gr. 24; Aquæ, fl. oz. ij. Mix. One teaspoonful in a small cup of sweetened tea three times a day. *For an infant with hooping-cough.*

38. *Iodide of Ammonium.*

℞. Ammonii Iodidi, gr. 3—15; Infusi Cinchonæ Flavæ, fl. oz. i—ij. Make a draught. To be taken twice or thrice daily before food. *Very valuable in strumous enlargement of the absorbent glands. The dose is to be graduated according to the patient's age. At the time this medicine is given internally, an ointment of the iodide of ammonium* (gr. 60 to lard oz. 1) *should be rubbed into the swellings night and morning.*

39. *Iodide of Sodium.*

℞. Sodii Iodidi, gr. 60; Decocti Sarsæ Compositi, fl. oz. viij. Mix. One-sixth part three times a day. *As an antisyphilitic where the iodide of potassium disagrees. Moreover, it will sometimes effect a cure after the latter has failed to be of use.*

40. *Benzoate of Ammonia.*

℞. Ammoniæ Benzoatis, gr. 10—30; Aquæ, fl. oz. iss. Mix. To be taken three times a day. *In chronic bronchitis, chronic inflammation of the bladder with alkaline urine, and in cases attended with the copious excretion of phosphates.*

41. *Creasote.*

℞. Creasoti, min. xx—xl; Pulveris Aromatici, gr. 80; Mucilaginis Acaciæ, sufficient to form a mass. Divide into twenty pills, and order one or two to be taken three times a day. *In some forms of neuralgia, chronic bronchitis, and obstinate vomiting unconnected with inflammation or organic disease—such as sea-sickness. After taking creasote for a short time, the urine occasionally assumes a dirty or brownish-black colour. Inunction with tar may give rise to the same effect. Under these circumstances, creasote has been obtained from the urine by distillation.*

In the officinal Mistura Creasoti the unpleasant flavour is tolerably well disguised by the Spirit of Juniper. Dose, fl. oz. j—ij. See F. 90.

42. *Bromide of Potassium.*

℞. Potassii Bromidi, gr. 3—8; Aquæ, fl. oz. j. Mix. To be taken three times a day. *Efficacious, according to the late* Dr. Robert Williams, *in reducing enlarged spleens.*

℞. Potassii Bromidi, gr. 60—90; Potassii Iodidi, gr. 12; Potassæ Bicarbonatis, gr. 40; Tincturæ Aurantii, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. One-sixth part, on an empty stomach, night and morning. *The favourite remedy in epilepsy* (1865).

℞. Potassii Bromidi, gr. 30—60; Tincturæ Valerianatæ Ammoniatæ, fl. drs. vj; Aquæ Camphoræ, *vel* Infusi Chiratæ, ad fl. oz. viij. Mix. One-

sixth part three times a day. *In hysteria, insomnia due to nervous irritability, functional disturbance of the uterine functions, spermatorrhœa, &c.*

℞. Pulveris Guaiaci, gr. 40; Potassii Bromidi, gr. 30; Magnesiæ Carbonatis, gr. 60. Mix. Divide into six powders, and order one to be taken three times a day. *Useful in cases where it is required to exert a sedative action on the sexual organs.*

43. *Guaiacum Mixtures.*

℞. Tincturæ Guaiaci Ammoniatæ, fl. drs. iv; Tincturæ Aconiti, min. xxx; Mucilaginis Tragacanthæ, Aqua Cinnamomi, āā fl. oz. iv. Mix. Two tablespoonfuls twice or three times a day. *In the chronic rheumatism of old and weak people. Also in some skin diseases where there is a strumous taint.*

℞. Extracti Opii Liquidi, min. xxx; Tincturæ Quiniæ Compositæ, fl. drs. vj; Misturæ Guaiaci, ad. fl. oz. viij. Mix. One-sixth part three times a day. *In chronic skin diseases. Guaiacum has also been highly extolled in tonsillitis.*

℞. Sulphuris Sublimati, oz. 2; Potassæ Tartratis Acidæ, oz. 1; Pulveris Rhei, gr. 120; Guaiaci Resinæ, gr. 60; Mellis, lb. j; Myristicæ, unum in pulverem redacti. Mix thoroughly, and order two teaspoonfuls to be taken night and morning until the whole is consumed. *This compound was formerly in much repute for the cure of chronic rheumatism; being said to be especially useful in old-standing cases, when the skin is inactive and the intestinal glands &c. torpid. It was well-known under the name of the "Chelsea Pensioner."*

44. *Quinine and Ipecacuan.*

℞. Quiniæ Sulphatis, gr. 8; Pulveris Ipecacuanhæ, gr. 24; Pulveris Ipecacuanhæ cum Opio, gr. 30; Glycerini, sufficient to form a mass. Divide into sixteen pills, and order two to be taken every three or four hours. *In subacute dysentery, occurring in tropical regions.* See F. 384.

45. *Quinine and Belladonna.*

℞. Quiniæ Sulphatis, gr. 2; Extracti Belladonnæ, gr. ½; Extracti Opii, gr. ½—1; Extracti Hyoscyami, gr. 2. Make a pill, to be taken every six or eight hours. *In neuralgia, pruritus of the vulva, carcinoma &c.* See F. 383.

46. *Colchicum &c.*

℞. Calomelanos, Extracti Colchici Acetici, Extracti Aloes Barbadensis, Pulveris Ipecacuanhæ, āā gr. 1. Make a pill, to be taken every four hours until the bowels are well acted upon. *In gout, with congestion of the liver.*

℞. Extracti Colchici Acetici, Extracti Aconiti, āā gr. 1; Pilulæ Hydrargyri, gr. 3. Make a pill, to be taken every night at bed-time. *In gout, with deficient action of the liver.*

℞. Potassæ Citratis, gr. 120; Vini Colchici, fl. drs. j—ij; Liquoris Morphiæ Hydrochloratis, fl. drm. j; Aquæ Camphoræ, ad. fl. oz. viij. Mix. One-sixth part every six hours. *In some forms of gout, where there is but little constitutional depression.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. vj; Vini Colchici, fl. drs. ij—iv; Tincturæ Aurantii, ad fl. oz. ij. Mix. Direct,—"One teaspoonful in half a bottle of soda-water, three times a day."

47. *Oxide of Silver.*

℞. Argenti Oxidi, gr. 1—2; Pulveris Aromatici, gr. 2; Extracti Cannabis Indicæ, gr. ½; Glycerini, sufficient to make a pill. To be taken three times a day. *Of doubtful efficacy in dyspepsia, pyrosis, hæmoptysis, menorrhagia, &c.*

48. *Sulphite of Soda &c.*

℞. Sodæ Sulphitis, gr. 30—60; Infusi Quassiæ, fl. oz. iss. Mix, and make a draught to be taken three times a day. Dr. Jenner.—*In diseases of the stomach accompanied by the formation of the sarcinæ ventriculi. The patient should eat unfermented bread while taking this medicine.*

The Sulphite of Magnesia may be given in the same way, with the object of neutralising blood-poisons. It is richer in sulphurous acid than the sulphite of soda, is more stable, and has a much more agreeable taste. This salt has been strongly recommended by Dr. Polli, of Milan, in cases of pyæmia, typhus, puerperal fever, hospital gangrene, dissecting wounds, glanders, cholera, &c.

49. *Benzoic Acid.*

℞. Acidi Benzoici, gr. 3—20; Theriacæ, sufficient to form one or more pills. *Administered in proper doses, three or four times a day, this remedy is useful in jaundice from suppressed action of the liver, and in uræmia. It has also been recommended in some cases of incontinence of urine in children.* See F. 246.

50. *Turpentine Mixtures.*

℞. Olei Terebinthinæ, fl. oz. j; Vitelli Unius Ovi; beat together, and add gradually Misturæ Amygdalæ, fl. oz. iv; Syrupi Aurantii, fl. oz. ij; Tincturæ Lavandulæ Compositæ, fl. drs. iv; Olei Cinnamomi, guttæ iv. Mix. Two tablespoonfuls to be taken three times a day. Carmichael.—*Recommended in iritis, where the use of mercury is contra-indicated.*

℞. Spiritûs Ætheris, fl. drs. ij; Olei Terebinthinæ, fl. drs. iss; Mucilaginis Acaciæ fl. oz. iij; Aquæ Cinnamomi, ad fl. oz. vj. Mix. Direct,—"One-sixth part three times a day." *To prevent the formation of gall-stones, or to aid in dissolving them. The utility of this mixture is doubtful.*

℞. Olei Terebinthinæ, fl. drs. iss—iij; Syrupi Limonis, fl. drs. vj; Mucilaginis Tragacanthæ, fl. oz. iij; Aquæ, ad fl. oz. vj. Mix. Direct,—"One-sixth part every four or six hours." *Useful in some forms of hæmatemesis, hæmoptysis, epistaxis, purpura hæmorrhagica, &c. Its effects must be watched, so that it may be discontinued directly any unpleasant results—such as strangury or severe vomiting—arise.—If the symptoms are very urgent the first dose of the turpentine may consist of* fl. drs. iv—vj, *beaten up with mucilage; the succeeding doses being according to the formula. In some cases the turpentine may be advantageously given with gallic acid, or the tincture of the perchloride of iron, or with the acid infusion of roses, or with the dilute nitric acid. A drop of creasote with each dose materially lessens its tendency to cause nausea.*

℞. Terebinthinæ Chiæ, gr. 2; Pulveris Rhei, gr. 3; Saponis duri, sufficient to make a pill. To be taken twice a day. See F. 102.

51. *Donovan's Triple Solution.*

℞. Liquoris Hydriodatis Arsenici et Hydrargyri, min. xx—xxx; Tincturæ Zingiberis, fl. drm. j; Aquæ, fl. oz. j. Make a draught, to be taken twice a day, directly after meals. *Useful in lepra, psoriasis &c.*

52. *Arsenical Mixtures.*

℞. Liquoris Arsenicalis, min. iij; Tincturæ Lupuli, min. xxx; Infusi Quassiæ, fl. oz. j. Make a draught, to be taken three times a day, directly after meals. *Very useful in many obstinate cutaneous diseases. In ague the quantity of arsenic must be trebled. Under any circumstances, the dose should be diminished directly the tongue gets thoroughly coated with a silvery-looking fur, or the conjunctivæ become irritable, or diarrhœa sets in, or gastric pain is complained of.*

℞. Liquoris Sodæ Arseniatis, m. iij—v; Vini Colchici, min. x; Tincturæ Cinchonæ Compositæ, fl. drm. j; Tincturæ Aconiti, min. v; Aquæ, ad fl. oz. j. Mix. To be taken three times a day, directly after meals. *In some forms of chronic rheumatism &c.*

℞. Quiniæ Sulphatis, gr. 20; Liquoris Arsenici Chloridi (Phar. Lond. 1851), fl. drs. iij—iv; Acidi Sulphurici Aromatici, fl. drs. ij; Syrupi Zingiberis, ad fl. oz. iij. Mix. Label,—"One teaspoonful in two tablespoonfuls of water directly after breakfast, dinner, and tea."—*In severe neuralgia, chorea, chronic rheumatism, asthma, hay-fever, and intermittent fever.* See F. 381, 399.

℞. Liquoris Arsenicalis, min. xxx; Tincturæ Cantharidis, fl. drm. j; Tincturæ Aurantii, fl. drs. vj; Potassii Iodidi, gr. 18—30; Infusi Aurantii, ad fl. oz. vj. Mix. One-sixth part directly after the two chief meals. *Valuable in some inveterate cutaneous diseases, as lupus, lepra, psoriasis &c.*

℞. Liquoris Sodæ Arseniatis, fl. drs. iss; Succi Scoparii, fl. oz. iij. Mix. One teaspoonful three times a day, in a wineglassful of water. *In some cases of dropsy from chronic renal disease.*

℞. Acidi Arseniosi, gr. 1; Pulveris Zingiberis, gr. 40; Extracti Jalapæ, gr. 20; Pulveris Tragacanthæ Compositi, gr. 30; Confectionis Rosæ Caninæ, gr. 10. Mix very intimately, divide into twenty pills, and order one to be taken three times a day, immediately after meals. *In psoriasis, chronic eczema, and other cases where it is desirable to administer arsenic in a solid form.*

53. *Green Iodide of Mercury.*

℞. Hydrargyri Iodidi Viride, gr. 12; Extracti Lupuli, gr. 60; Extracti Opii, gr. 2—5. Mix. Divide into twenty-four pills, silver them, and order one to be taken three or four times in the day.—*The green iodide of mercury* (Syn. Iodide of Mercury) *will cure some of the pustular and tubercular diseases of the skin, as well as certain secondary venereal ulcerations, when all other means fail.* See F. 33.

℞. Hydrargyri Iodidi Viride, gr. 6; Extracti Conii, gr. 30. Mix. Divide into six pills, and order one to be taken every night at bed-time. *In small secondary syphilitic ulcers about the tongue.*

54. *Red Iodide of Mercury.*

℞. Hydrargyri Iodidi Rubri, gr. 2—3; Morphiæ Hydrochloratis, gr. 1; Extracti Gentianæ, *vel* Extracti Conii, gr. 40. Mix. Divide into twelve pills, and order one to be taken twice a day. A couple of ounces of the Compound Decoction of Sarsaparilla may be taken with each pill, or an ounce of the Guaiac Mixture. *Useful in the same cases as demand the green iodide of mercury. The red iodide* (Syn. Biniodide of Mercury) *is, however, less likely to cause gastric irritation.*

℞. Hydrargyri Corrosivi Sublimati, gr. 1; Ammoniæ Hydrochloratis,

gr. 5; Potassii Iodidi, gr. 40; Aquæ, fl. drs. ij; Extracti Sarsæ Liquidi, ad fl. oz. ij. Mix. Label,—"A small teaspoonful in a wineglassful of water three times a day."—*This formula gives a convenient extemporaneous mode of exhibiting the red iodide of mercury in a fluid form.*

℞. Hydrargyri Iodidi Rubri, gr. 3; Potassii Iodidi, gr. 60—120; Spiritûs Vini Rectificati, fl. drm. j; Syrupi Zingiberis, fl. drs. iv; Aquæ Destillatæ, fl. oz. iss. Mix. Label,—"Thirty drops three times a day in a wineglassful of water." MR. LANGSTON PARKER *says—and the Author can confirm the remark—that this remedy, used in conjunction with the mercurial vapour bath, produces excellent results in some obstinate forms of tubercular disease of the skin; as well as in secondary venereal ulcerations, proving intractable after the employment of other remedies.*

55. *Red Iodide of Mercury and Arsenic.*

℞. Hydrargyri Iodidi Rubri, gr. 1; Potassii Iodidi, gr. 120; Liquoris Arsenicalis, fl. drs. iss; Tincturæ Lavandulæ Compositæ, fl. oz. ij; Spiritûs Chloroformi, fl. drs. iv; Aquæ, ad fl. oz. xij. Mix; and direct,—"One tablespoonful to be taken three times a day, immediately after food."—*In psoriasis, and some inveterate squamous and tubercular and ulcerous affections of the skin.*

56. *Puccoon and Iodide of Arsenic.*

℞. Sanguinariæ Canadensis, gr. 12; Arsenici Iodidi, gr. 2; Extracti Conii, gr. 40. Mix carefully, divide into twenty-four pills, and order one to be taken three times a day. *Said to be beneficial in cases of cancer.*

57. *Chloride of Bromium.*

℞. Bromidi Chloridi, guttæ iij—iv; Pulveris Glycyrrhizæ, gr. 60. Mix intimately, and divide into twenty pills. One to be taken twice or thrice daily. *Recommended by* LANDOLFI *in cancer.*

58. *Bael and Spirit of Chloroform.*

℞. Extracti Belæ Liquidi, fl. oz. ij; Spiritûs Chloroformi, fl. oz. j. Mix. Direct,—"One teaspoonful in a cup of barley water three or four times a day."—*Has been found useful in diarrhœa and dysentery.*

59. *Nitrate of Silver.*

℞. Argenti Nitratis, gr. 1; Extracti Hyoscyami, gr. 3. Make a pill. To be taken every twelve hours, on an empty stomach, for about ten days. *In cases of idiopathic jaundice dependent upon gastro-duodenal disturbance rather than on disease of the liver.*

℞. Argenti Nitratis, gr. 3—12; Micæ panis, gr. 30. Divide into twelve pills, and order one to be taken three times a day. *In progressive locomotor ataxy &c.* See F. 419. The gums should be watched, as the gingival mucous membrane becomes discoloured before the skin is affected. There is consequently time to prevent the latter by discontinuing the silver salt.

60. *Hydrochlorate of Ammonia.*

℞. Ammoniæ Hydrochloratis, gr. 90; Syrupi Hemidesmi, fl. oz. j. Infusi Dulcamaræ, ad fl. oz. viij. Mix. Two tablespoonfuls every six hours. *In some forms of chronic rheumatism.*

℞. Liquoris Ammoniæ Acetatis, min. xxx; Ammoniæ Hydrochloratis, gr. 15; Aquæ Camphoræ, fl. oz. ij. Make a draught, to be taken every

four hours. *In some varieties of rheumatism, phlegmasia dolens, thrombosis &c. where the fibrin of the blood is in excess.* The efficacy of this remedy is increased by giving 120 or 200 grains of the Acid Tartrate of Potash (Syn. BITARTRATE OF POTASH) in half a pint of water, early in the morning.

℞. Ammoniæ Hydrochloratis, gr. 20; Extracti Taraxaci, gr. 15; Tincturæ Gentianæ Compositæ, fl. drs. iss; Infusi Sennæ, ad fl. oz. ij. Make a draught, to be taken twice or thrice daily. *In some cases of ascites dependent on cirrhosis, in jaundice, in diminished secretion of bile &c.*

61. *Chlorate of Potash.*

℞. Potassæ Chloratis, gr. 120; Aquæ Camphoræ, *vel* Infusi Cinchonæ Flavæ, fl. oz. viij. Mix. One-sixth part every four or six hours. *In inflammatory affections of the mouth &c.*

℞. Potassæ Chloratis, gr. 90; Spiritûs Ætheris, fl. drs. iij; Infusi Chiratæ, ad fl. oz. iv. Direct,—"One tablespoonful in a wineglassful of water three times a day."

III. ANTACIDS.

62. *Carbonate of Magnesia.*

℞. Magnesiæ Carbonatis, gr. 80; Extracti Opii Liquidi, min. xxx; Spiritûs Ætheris, fl. drs. iij; Aquæ Menthæ Viridis, ad fl. oz. vj. Mix. One-fourth part occasionally. *Useful where there is much oppression from flatulence.*

℞. Magnesiæ Carbonatis, Sodæ Bicarbonatis, āā gr. 15; Infusi Serpentariæ, fl. oz. iss. Make a draught, to be taken twice or thrice daily. *In chronic urticaria.*

63. *Ammonia and Chiretta.*

℞. Ammoniæ Carbonatis, gr. 5; Tincturæ Aurantii, fl. drm. j; Infusi Chiratæ, fl. oz. j; Aquæ, ad fl. oz. ij. Make a draught, to be taken night and morning. *A good remedy in dyspepsia, with acid eructations and debility.*

64. *Preparations of Lithia.*

℞. Lithiæ Carbonatis, gr. 3—6; Aquæ, fl. oz. j. Make a draught, to be taken twice a day. It is an improvement to add it to a bottle of soda water. DR. GARROD *speaks highly of this remedy in cases of the uric acid diathesis, and in chronic gout. Where uric acid gravel is being voided, it causes a marked improvement. The carbonate of lithia exists in many of the continental springs—as Carlsbad, Marienbad, Kreuznach, Aix-la-Chapelle, Kissingen, Ems, Vichy, Baden-Baden &c.*

℞. Lithiæ Citratis, Magnesiæ Carbonatis, āā gr. 10. Make a powder, to be taken twice daily. *In chronic gout.*

65. *Bismuth, with Magnesia or Soda.*

℞. Bismuthi Albi, Magnesiæ Carbonatis, āā gr. 10. Make a powder, to be taken in half a bottle of soda water three times a day.

℞. Bismuthi Albi, gr. 15; Sodæ Bicarbonatis, gr. 12; Pulveris Tragacanthæ Compositi, gr. 60. Make a powder, to be taken twice or thrice in the twenty-four hours, in a wineglassful of brandy and water.

℞. Liquoris Bismuthi, fl. drm. j; Infusi Quassiæ, fl. oz. j. Make a draught, to be taken three times a day. One drachm of the solution of bismuth is equal to twenty grains of the powder. *These preparations are very useful in pyrosis, gastrodynia, and many diseases of the stomach, cœcum, &c.* See also F. 112.

66. *Chalk Mixture and Hops.*

℞. Tincturæ Lupuli, fl. drs. vj; Tincturæ Cardamomi Compositæ, fl. drs. iv; Vini Ipecacuanhæ, fl. drs. ij; Extracti Opii Liquidi, min. xxv; Misturæ Cretæ, ad fl. oz. vj. Mix. One tablespoonful every three or four hours *In diarrhœa due to acidity of the primæ viæ.*

67. *Potash and Ammonia.*

℞. Potassæ Bicarbonatis, gr. 120; Spiritûs Ammoniæ Aromatici, fl. drs. ij; Tincturæ Aconiti, min. xxx; Infusi Lupuli, ad fl. oz. viij. Mix. One-sixth part three times a day. *In gastrodynia.*

68. *Ammonia, Potash, and Bark.*

℞. Ammoniæ Carbonatis, gr. 30; Potassæ Chloratis, gr. 90; Extracti Opii Liquidi, min. xxx; Decocti Cinchonæ Flavæ, fl. oz. viij. Mix. One-sixth part three times a day. *In debility with acid secretions.*

69. *Solution of Potash and Buchu.*

℞. Liquoris Potassæ, min. x—xv; Tincturæ Hyoscyami, min. xx; Infusi Bucco, fl. oz. iss. Make a draught, to be taken three times a day. *In catarrh and irritability of the bladder.*

70. *Soda, Morphia, and Dilute Hydrocyanic Acid.*

℞. Sodæ Bicarbonatis, gr. 15; Liquoris Morphiæ Hydrochloratis, min. xv; Acidi Hydrocyanici Diluti, min. v; Infusi Cascarillæ, fl. oz. j. Make a draught, to be taken immediately. *In gastrodynia &c., after the stomach has been emptied by an emetic. In angina pectoris, immediately after a paroxysm.*

71. *Potash and Aloes.*

℞. Potassæ Bicarbonatis, oz. ½; Tincturæ Chiratæ, fl. drs. ij; Decocti Aloes Compositi, fl. oz. viij. Mix. Take one-sixth part early every morning. *In chronic gout.*

72. *Bicarbonate of Potash.*

℞. Potassæ Bicarbonatis, gr. 30; Aquæ, fl. oz. iss. Make a draught, to be taken every two hours. *In acute rheumatism, continuing the medicine until the joints are free from pain. It generally renders the urine alkaline in twenty-four hours.*

73. *Potash and Lime Water.*

℞. Liquoris Potassæ, min. xv—xlv; Liquoris Calcis Saccharati, fl. drs. ij. Mix. To be taken in a cupful of beef-tea, or of milk, two or three times a day. See F. 14.

IV. ANTISEPTICS.

74. *Artificial Disinfectants.*

The most useful agents are—chloride of lime, quick lime, and permanganate of potash. In certain cases the perchloride of iron, sulphate of iron, ammonia, iodine, and chloride of zinc are applicable; or chlorine gas, or sulphurous acid gas (obtained by burning a couple of ounces of flowers of sulphur in a pipkin), may be employed; or powdered charcoal can be tried.

No night-stool or bed-pan should be used, especially in hospitals, without its containing the solution of permanganate of potash, or some chloride of lime, or chloride of zinc, or carbolic acid, or half an ounce of tincture of iodine. The first has the advantage of not being corrosive; but the last is one of the most efficacious.—To remove quickly any unpleasant smell from the sick room, dried lavender or cascarilla bark may be burnt; while the door and window must be opened, so as to allow of a free current of pure air.

To disinfect linen and washing apparel they should be soaked in a mixture of two ounces of the solution of permanganate of potash to the gallon of water; and afterwards in boiling water. Woollens, bedding, or clothing may be thoroughly purified by exposing them for about two hours, in an oven, to a temperature of 220° F.

75. *Chlorine Gas.*

As a fumigating agent, antiseptic, and disinfectant, chlorine stands unrivalled. The ingredients for producing it should be contained in saucers placed in the higher parts of the room, as the gas which is developed will descend by its density, and soon become mixed with the surrounding air. Dr. Faraday adopted the following method at the Millbank Penitentiary:—One part of common salt was intimately mixed with one part of the black or binoxide of manganese, and placed in a shallow earthen pan; two parts of oil of vitriol previously diluted with two parts by measure of water, were then poured over it, and the whole stirred with a stick. Chlorine continued to be liberated from this mixture for four days.

Another plan for causing the free evolution of chlorine gas is the addition of half a pint of hydrochloric acid mixed with a quarter of a pint of water, to a quarter of a pound of finely powdered black oxide of manganese. Whichever mode is adopted for producing this disinfectant, it is necessary while employing it that the doors, windows, and chimney of the room be kept carefully closed for some hours.

The Chlorides of Lime and Soda, when exposed to the air, gradually absorb carbonic acid and give off chlorine. Hence either of these salts can be used as disinfecting agents. Cloths, dipped in an aqueous solution of chloride of lime, may be hung up in an inhabited room to fumigate it; the quantity of chlorine given off being too small to be mischievous. It was probably in reference to these salts, that Abernethy said of disinfectants,—"they are sometimes very useful, very useful indeed; for they make such an abominable stink that the patient is obliged to have the windows opened."

76. *Solution of Chlorinated Soda.*

℞. Liquoris Sodæ Chloratæ, fl. drs. ij—iij; Extracti Opii Liquidi, min. xxx; Aquæ Camphoræ, ad fl. oz. viij. Mix. Two tablespoonfuls three

times a day. *In gangrene of the lung, low fever &c. It not only relieves the fetor, but acts as an alterative &c. If necessary, the opium can be omitted.*

77. *To prepare Chlorine for Internal Administration.*

Put eight grains of chlorate of potash in a strong pint bottle, and pour upon them one drachm of strong hydrochloric acid. Close the mouth of the bottle until the violent action ceases, when add one ounce of water, and agitate well; add another ounce, again shake, and continue this process until the bottle is full. One or two tablespoonfuls may be taken frequently according to the age. An adult may use the whole pint in one day.

The dose of the officinal LIQUOR CHLORI is from min. xxx to fl. drs. ij in a wineglassful of water, several times daily. *Useful in scarlet fever, typhus, diphtheria, chronic affections of the liver &c.*

78. *Permanganate of Potash.*

The permanganate of potash is an excellent disinfectant, and is the basis of CONDY'S Antiseptic Fluid. The latter is double the strength of the officinal LIQUOR POTASSÆ PERMANGANATIS.

From fl. drs. j—vj of the solution of permanganate of potash in one pint of water, may be applied to all kinds of suppurating sores. The author has frequently ordered such a lotion with great benefit to destroy the horribly offensive odour of a malignant ulcer; or for the same purpose in suppurating scalds and burns. The solution should be made only of such a strength, as to be borne without any pain or even uneasiness. It must be frequently syringed over the sores, since contact with lint and sponges decomposes it. Linen is stained by it, but the discoloration may be removed by sulphate of iron. As a wash for stinking feet, or for the removal of offensive odours from the hands after handling morbid specimens &c. the liquor ought to be used in the proportion of one fluid drachm to the ounce of distilled water. As an injection in cancer of the uterus, the strength ought not to be greater than half a fluid ounce to one pint of water. To deprive night-chairs of offensive odour, a wineglassful of CONDY'S fluid should be mixed with two pints of fresh or salt water, and put into the pan previous to its use.

79. *Chloride of Zinc.*

This substance is a most powerful caustic, which has long been used to destroy cancerous and other growths. It has been administered internally —dose, gr. 1, largely diluted—but without any benefit. It forms, however, a valuable disinfectant gargle—gr. 10 to water fl. oz. viij; or in still larger proportions it is a most efficacious antiseptic. SIR W. BURNETT'S Disinfecting Fluid consists of gr. 25 of this salt to water fl. drm. j. For use, about one ounce of this solution is added to two pints of water. To disinfect a sick room, a piece of flannel three or four feet square is to be moistened with a solution thus made, and frequently waved through the air. Some of it should also be placed in the close-stools and bed-pans.

80. *Chlorinated Lime Lozenges.*

℞. Calcis Chloratæ, gr. 60; Sacchari Albi, oz. 4; Amyli, oz. 1; Olei Menthæ Piperitæ, fl. drm. j; Pulveris Tragacanthæ Compositi, gr. 120; Aquæ Menthæ Piperitæ, sufficient to form a mass. To be divided into

lozenges of twenty grains each. *One may be taken frequently to remove fetor of the breath, whether due to mercury or other causes.*

81. *Iodine.*

This agent has been recommended for disinfecting and deodorising purposes by WYNN WILLIAMS, CAMPBELL DE MORGAN, NUNN, and RICHARDSON. Two hundred grains are placed in a common chip box and suspended over the patient's bed, or they may be put into a cup or saucer on the mantelshelf. If desired, the metal may be at once volatilised and the vapour diffused through the apartment, by placing it on a heated fire-shovel. In rooms occupied by small-pox patients the air may be kept free from smell by using iodine in this manner,—probably the strongest proof which could be adduced of the value of this simple and manageable remedy.

℞. Tincturæ Iodi, fl. drs. vj; Aquæ Destillatæ, ad fl. oz. viii. Mix. *Useful as a lotion to unhealthy ulcerations with offensive discharges.*

82. *Extract of Logwood.*

℞. Extracti Hæmatoxyli, oz. 1; Butyri Cacao, Adipis, āā oz. ½. Mix. *This is an excellent disinfectant when applied to malignant sores or suppurating wounds. The remedy is equally efficacious when used as a lotion or powder. If any hæmostatic be needed, the logwood may be combined with tannin or perchloride of iron.*

83. *Chlorate of Potash Lozenges.*

℞. Potassæ Chloratis, gr. 150; Balsami Tolutani, gr. 35; Spiritûs Vini Rectificati, sufficient to make a solution. Then add, Sacchari Albi, oz. 10; Mucilaginis Acaciæ, sufficient. The paste thus made is to be divided into 50 lozenges, each of which will contain three grains of chlorate of potash, and nearly one of balsam of tolu. *Twelve or fifteen may be taken in the course of the day, to remove foulness of the breath. These lozenges are useful also in healing ulcerations of the gums.*

84. *Bark and Camphor.*

℞. Spiritûs Camphoræ, min. xx; Spiritûs Rectificati, fl. drm. j; Infusi Cinchonæ Flavæ, ad fl. oz. iss. Make a draught. *To be taken every six or eight hours by a nervous attendant in a sick room. Its efficacy may be increased by the occasional addition of a glass of port wine.*

V. ANTISPASMODICS.

85. *Ether Mixtures.*

℞. Spiritûs Ætheris, min. xl—fl. drm. j; Extracti Opii Liquidi, min. x—xv; Tincturæ Castorei, fl. drm. j; Aquæ Menthæ Piperitæ, ad fl. oz. iss. Make a draught. *To be taken occasionally when the system is oppressed with flatulence or spasms.*

℞. Spiritûs Ætheris, Spiritûs Chloroformi, āā fl. drs. iij; Tincturæ Cardamomi Compositæ, fl. drs. vj; Spiritûs Myristicæ, fl. drs. ij; Olei Carui, min. xij; Mucilaginis Tragacanthæ, fl. oz. iij; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. Two or three tablespoonfuls occasionally, when there is oppression from flatulence.

℞. Spiritûs Ætheris, fl. drs. iss; Spiritûs Ammoniæ Aromatici, fl. drs. ij; Tincturæ Camphoræ cum Opio, fl. drs. iss; Aquæ Camphoræ, ad fl. oz. iv. Mix. Label,—"Two tablespoonfuls every half-hour, until the pain is relieved." *In spasmodic diseases, angina pectoris &c.*

86. *Ammonia Mixtures.*

℞. Spiritûs Ammoniæ Aromatici, fl. drm. j; Acidi Hydrocyanici Diluti, min. iij—v; Syrupi Zingiberis, fl. drm. j; Aquæ Carui, ad fl. oz. iss. Make a draught, to be taken twice or thrice a day if there be flatulence or languor. *In dyspepsia, or debility with irritable stomach.* See F. 67, 68.

℞. Tincturæ Assafœtidæ, fl. drs. ij; Ammoniæ Carbonatis, gr. 20; Aquæ Camphoræ, ad fl. oz. iv. Mix. One or two tablespoonfuls occasionally, when the patient is feeling languid or hysterical.

℞. Spiritûs Ammoniæ Aromatici, min. xxx; Magnesiæ Carbonatis, gr. 20; Spiritûs Chloroformi, fl. drm. j; Aquæ Menthæ Piperitæ, ad fl. oz. iss. Make a draught. To be taken occasionally. *In severe colic.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. iss; Spiritûs Etheris, fl. drm. j; Tincturæ Belladonnæ, min. xij; Acidi Hydrocyanici Diluti, min. viij; Syrupi, ad fl. oz. ij. Mix. One teaspoonful in the same quantity of water every four hours. *For a child two years old with hooping-cough.*

87. *Valerian Draught.*

℞. Tincturæ Valerianæ Ammoniatæ, min. xl; Infusi Valerianæ, fl. oz. j. Make a draught, To be taken occasionally. *In hysteria.*

88. *Lobelia, Ether &c.*

℞. Tincturæ Lobeliæ Æthereæ, fl. drs. iij; Vini Ipecacuanhæ, fl. drs. ij; Misturæ Ammoniaci, ad fl. oz. vj. Mix. Two tablespoonfuls every six hours. *In the dyspnœa of asthma, when there is vesicular emphysema.*

89. *Assafœtida and Chiretta.*

℞. Tincturæ Assafœtidæ, fl. drs. ij; Spiritûs Ammoniæ Aromatici, fl. drs. iij; Tincturæ Chiratæ, fl. drs. vij. Mix. Direct,—"Sixty drops in a wineglassful of water every two or three hours, until the paroxysms cease." *In hysteria.*

90. *Aconite and Creasote.*

℞. Tincturæ Aconiti, min. xlv; Misturæ Creasoti, ad fl. oz. viij. Mix. One-sixth part three times a day. *In some cases of obstinate sickness, such as occurs during pregnancy and in hysteria.* See F. 41.

91. *Nitric Acid Mixture.*

℞. Acidi Nitrici Diluti, fl. drs. xij; Tincturæ Cardamomi Compositæ, fl. drs. iij; Syrupi, fl. oz. iiiss; Aquæ, fl. oz. j. Mix. One or two small teaspoonfuls every two hours. Dr. Gibb *states that nitric acid is a specific in the treatment of hooping-cough, curing the disease in from two to fifteen days. He recommends this formula.*

92. *Sulphate of Zinc and Belladonna.*

℞. Zinci Sulphatis, gr. 8; Extracti Belladonnæ, gr. 2; Aquæ, fl. oz. iv. Mix. Half an ounce four times a day. Dr. Fuller.—*For a child above three years of age with hooping-cough. Every other day the strength of the mixture may be augmented in the proportion of one dose. The belladonna*

may be thus gradually increased to doses of five grains without any mischief. See F. 326.

93. *Valerianate of Quinia.*

℞. Quiniæ Valerianatis, gr. 12; Extracti Gentianæ, gr. 40. Divide into twelve pills, silver them, and order one to be taken three times a day. *In hysteria, and analogous nervous disorders.*

94. *Stramonium, Colchicum, and Digitalis.*

℞. Potassæ Citratis, gr. 120; Tincturæ Stramonii, fl. drm. j; Tincturæ Colchici Seminis, fl. drs. ij; Infusi Digitalis, fl. oz. iij; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In irregular gout, with dyspnœa or violent palpitation, and a full pulse.*

95. *Sumbul and Ether.*

℞. Sumbulii Radicis, gr. 240; Spiritûs Ætheris, fl. oz. iv. Macerate in a stoppered bottle for seven days, and then filter. Dose, min. xx—xxx. *In neuralgia, hysterical fits &c.*

VI. ASTRINGENTS.

96. *Rhatany Mixtures.*

℞. Tincturæ Rhei, fl. drs. iij; Infusi Krameriæ, fl. oz. viij. Make a mixture, and order one-sixth part to be taken every six or eight hours. *A valuable astringent in common diarrhœa.*

℞. Extracti Krameriæ, gr. 20; Aquæ, fl. oz. iss. Make a draught. To be taken three times a day. *In hæmaturia, passive intestinal hæmorrhage &c.*

℞. Potassæ Chloratis, gr. 60; Tincturæ Krameriæ, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In relaxation of the buccal mucous membrane, sponginess of the gums &c.*

97. *Catechu Mixtures.*

℞. Tincturæ Catechu, fl. drs. iij—vj; Pulveris Cretæ Aromatici, gr. 90; Olei Menthæ Piperitæ, min. vj; Extracti Opii Liquidi, min. xxx; Misturæ Cretæ, ad fl. oz. viij. Mix. One-sixth part after every relaxed motion. *Efficacious in checking simple diarrhœa. In some instances half an ounce of castor oil should be given four hours before commencing this mixture.*

℞. Tincturæ Catechu, fl. drm. j; Acidi Sulphurici Aromatici, min. xv; Olei Menthæ Piperitæ, min. j; Infusi Catechu, fl. oz. j. Mix. To be taken two or three times a day.

℞. Tincturæ Catechu, fl. drs. iij; Spiritûs Chloroformi, fl. drs. vj; Extracti Belæ Liquidi, fl. drs. xij; Infusi Maticæ, ad fl. oz. vj. Mix. Two tablespoonfuls to be taken three or four times a day. *In chronic diarrhœa and dysentery.*

℞. Pulveris Catechu Compositi, gr. 30; Pulveris Cretæ Aromatici cum Opio, gr. 20. Make a powder. To be taken night and morning.

98. *Vegetable Charcoal.*

℞. Carbonis Ligni, Theriacæ, āā oz. 1. Mix. Direct one teaspoonful to be taken three or four times a day. *In some cases of chronic diarrhœa,*

when the irritation is kept up by fæcal fermentation. In fetid eructations. The charcoal should be recently prepared. Charcoal biscuits are also useful.

99. *Tannin and Nitric Acid.*

℞. Acidi Tannici, gr. 30; Acidi Nitrici Diluti, fl. drm. j; Tincturæ Lupuli, fl. drs. iv; Infusi Gentianæ, ad fl. oz. viij. Mix. Direct,—"One-sixth part three times a day." *To restrain secretion in chronic bronchial catarrh, in phthisis when the cavities are large and the walls throw out considerable quantities of purulent matter, in nervous debility, and in most cases where an astringent is required. When a ferruginous tonic is indicated, the above mixture may be given night and morning, and some preparation of steel in the middle of the day.*

100. *Aromatic Sulphuric Acid and Opium.*

℞. Acidi Sulphurici Aromatici, fl. drs. ij; Tincturæ Camphoræ cum Opio, fl. oz. j; Aquæ Cinnamomi, ad fl. oz. viij. Mix. Label,—"One-sixth part three times a day, about an hour before each meal."

101. *Perchloride of Iron.*

℞. Tincturæ Ferri Perchloridi, min. xv; Acidi Hydrochlorici Diluti, min. x; Olei Menthæ Piperitæ, min. j; Infusi Quassiæ, fl. oz. iss. Make a draught. To be taken every six hours. *In some cases of epistaxis, hæmorrhage from the stomach &c.*

102. *Oil of Turpentine.*

℞. Olei Terebinthinæ, min. x—xx; Misturæ Amygdalæ, fl. oz. j. Make a draught. To be taken every hour. *In severe hæmoptysis, especially where the individual is weak and cachectic.*

℞. Mucilaginis Acaciæ, fl. drs. iv; Sodæ Bicarbonatis, gr. 10; Olei Terebinthinæ, min. x; Olei Anethi, min. j; Aquæ Destillatæ, ad fl. oz. iss. Make a draught. To be taken thrice daily. *In passive hæmatemesis.* See F. 50.

103. *Gallic Acid.*

℞. Acidi Gallici, gr. 10—15; Aquæ Destillatæ, fl. oz. iss. Make a draught. To be taken every four hours.

℞. Acidi Gallici, gr. 4; Extracti Cannabis Indicæ, gr. ½; Confectionis Rosæ Gallicæ, gr. 1. Make a pill. To be taken every night at bed-time. *To check the night-sweats in phthisis.*

℞. Acidi Gallici, gr. 8; Morphiæ Hydrochloratis, gr. ¼; Confectionis Rosæ Gallicæ, sufficient to make two pills. Label,—"To be taken every night at bed-time." *In the night-sweats of phthisis.*

℞. Acidi Gallici, gr. 15—25; Acidi Sulphurici Aromatici, min. xv—xx; Tincturæ Cinnamomi fl. drs. ij; Aquæ Destillatæ, ad fl. oz. ij. Make a draught. To be taken every four hours until the bleeding ceases. *In profuse menorrhagia, hæmoptysis, hæmatemesis &c.*

℞. Acidi Gallici, gr. 12; Pulveris Ipecacuanhæ cum Opio, gr. 5. Make a powder. To be taken every eight or twelve hours. *A valuable astringent in hæmorrhage from the lungs, stomach, intestines, or kidneys.*

104. *Cinnamon Mixtures.*

℞. Tincturæ Cinnamomi, fl. drs. vj; Acidi Nitrici Diluti, fl. drs. ij. Mix, and label,—"Thirty drops in a wineglassful of water every two hours."—*Useful in passive hæmorrhages from the kidneys, bladder, uterus &c.*

℞. Tincturæ Cinnamomi, fl. drs. iv; Spiritûs Ammoniæ Aromatici, fl. drs. ij; Decocti Hæmatoxyli, ad fl. oz. vj. Mix. One-fourth part after every relaxed motion.

℞. Tincturæ Cinnamomi, fl. drs. ij; Aquæ Cinnamomi, fl. oz. j. Make a draught. To be taken thrice daily. *In menorrhagia especially, but also in other varieties of passive hæmorrhage.* See a paper by the Author, *Lancet*, 15 October 1853.

105. *Matico and Rhatany.*

℞. Tincturæ Krameriæ, fl. drs. xij; Syrupi Papaveris, fl. drs. vj; Infusi Maticæ, ad fl. oz. viij. Mix. One tablespoonful every three or four hours. *In the diarrhœa of phthisis.*

106. *Sulphate of Copper and Opium.*

℞. Cupri Sulphatis, Extracti Opii, āā gr. ¼; Extracti Gentianæ, gr. 3. Make a pill. To be taken three times a day. *In obstinate diarrhœa.*

107. *Nitrate of Silver and Opium.*

℞. Argenti Nitratis, gr. ½; Extracti Opii, gr. 2. Make a pill. To be taken night and morning. *In very obstinate diarrhœa where opium agrees with the system.* See F. 59.

108. *Kino and Logwood.*

℞. Tincturæ Kino, fl. drs. vj; Vini Ipecacuanhæ, fl. drs. ij; Decocti Hæmatoxyli, ad fl. oz. viij. Mix. One-sixth part three times a day. *In chronic dysentery, diarrhœa &c.*

109. *Cascarilla and Squills.*

℞. Tincturæ Scillæ, fl. drs. iss—ij; Acidi Sulphurici Aromatici, fl. drm. j; Liquoris Morphiæ Hydrochloratis, min. xxx; Infusi Cascarillæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In chronic bronchitis with profuse expectoration.*

110. *Alum and Syrup of Red Poppy.*

℞. Aluminis Exsiccati, gr. 16; Syrupi Rhœados, fl. drs. iij; Aquæ, ad. fl. oz. ij. Mix. One teaspoonful every two or three hours. *In the catarrh of infants, where the secretion from the bronchial tubes is excessive.*

111. *Oxide of Zinc.*

℞. Zinci Oxidi, gr. 12; Extracti Conii, *vel* Hyoscyami, gr. 18. Make a mass, divide into six pills, and order one to be taken every night at bed-time. *For the relief of night-sweats in phthisis and other exhausting diseases, there are few remedies more serviceable than the foregoing.*

℞. Zinci Oxidi, gr. 2; Morphiæ Hydrochloratis, gr. ⅙; Extracti Anthemidis, gr. 3. Make a pill, to be taken night and morning.

112. *White Bismuth.*

℞. Bismuthi Albi, gr. 60; Syrupi Papaveris, fl. drs. iv; Mucilaginis Tragacanthæ, fl. oz. iv; Aquæ, ad fl. oz. viij. Mix. One-sixth part every six or eight hours. *Useful in checking the diarrhœa of phthisis.*

℞. Bismuthi Albi, gr. 80; Pulveris Kino cum Opio, gr. 30; Tincturæ Cinnamomi, fl. drs. iij; Mucilaginis Tragacanthæ, fl. oz. ij; Aquæ, ad fl. oz. vj. Mix. One-sixth part every four hours.

℞. Bismuthi Albi, gr. 10; Pulveris Ipecacuanhæ cum Opio, gr. 5. Make

a powder, to be taken every night at bed-time. *As a sedative and astringent in the diarrhœa of phthisis.* See F. 65.

113. *Astringent Enemata.*

℞. Olei Terebinthinæ, min. xxx; Tincturæ Kino, fl. drs. ij; Extracti Opii Liquidi, min. xxv; Mucilaginis Amyli, fl. oz. ij. Make an enema. *To check the purging in typhoid fever. It may be employed twice or thrice in the twenty-four hours, if necessary.*

℞. Bismuthi Albi, gr. 20; Tincturæ Catechu, fl. drm. j; Liquoris Morphiæ Hydrochloratis, min. xxx; Mucilaginis Amyli, fl. oz. ij. Mix. *To check the purging of phthisis, fever &c. It may be administered every twelve hours.*

114. *Chloroform, Opium, and Castor Oil.*

℞. Chloroformi, min. vj—xij; Tincturæ Camphoræ cum Opio, fl. drs. ij; Olei Ricini, fl. drs. iij; Mucilaginis Tragacanthæ, fl. drs. iij. Make a draught, to be taken immediately. *In choleraic diarrhœa.*

115. *Alum and Sulphuric Acid.*

℞. Aluminis Exsiccati, gr. 60; Syrupi Rhœados, fl. drs. vj; Infusi Rosæ Acidi, ad fl. oz. viij. Mix. Two tablespoonfuls every six hours. *In passive hæmorrhage. Also in some cases of lead colic.*

116. *Ammonia Iron-Alum.*

℞. Ferri Ammonio-Sulphatis, gr. 30—60; Aquæ Destillatæ, fl. oz. viij. Mix. One-sixth part every six or eight hours. *An excellent astringent in some forms of hæmatemesis, hæmoptysis &c.*

117. *Lead and Acetic Acid.*

℞. Pilulæ Plumbi cum Opio, gr. 4. To be taken every two or three hours, with the following draught:—℞. Acidi Acetici Diluti, fl. drs. ij; Aquæ Cinnamomi, fl. drs. vj. Mix. *In severe hæmoptysis.—The acetate of lead is inferior to gallic acid as an astringent, unless given in larger doses than are commonly employed. According to* Dr. C. K. Irwin, *this lead salt may be prescribed in* 60, 120, *or* 180 *gr. doses, with great advantage, in cases of uterine hæmorrhage requiring prompt suppression.*

118. *Cold as a Local Astringent.*

The best and cheapest freezing mixture is made with ice and common salt in equal parts. Any of the following, however, will prove useful:—

MIXTURES.	PARTS.	THERM. SINKS.
Hydrochlorate of Ammonia	5	From 50° to 10
Nitre	5	
Water	10	
Nitrate of Ammonia	1	From 50° to 4°
Water	1	
Snow	2	From 32° to −4°
Common Salt	1	
Snow or Ice	12	From 18° to −25°
Common Salt	5	
Nitrate of Ammonia	5	

VII. BATHS.

119. *Temperature of Simple Baths.*

BATH.	WATER.	VAPOUR.	AIR.
The Cold . .	33° to 65° F.		
„ Cool . .	65° to 75°		
„ Temperate	75° to 85°		
„ Tepid . .	85° to 92° . . .	90° to 100° . . .	96° to 106°
„ Warm. .	92° to 98° . . .	100° to 115° . . .	106° to 120°
„ Hot . .	98° to 112° . . .	115° to 140° . . .	120° to 170°

120. *Nitro-Hydrochloric Acid Baths.*

℞. Acidi Nitrici, fl. oz. iss; Acidi Hydrochlorici, fl. oz. j—iij; Aquæ Calidæ, Cxxx. Mix. To be prepared in a wooden bath. The patient should remain in it from ten to twenty minutes. *Useful in cases where the liver is inactive,—as in invalids from tropical climates.*

℞. Acidi Nitrici, fl. drs. iv; Acidi Hydrochlorici, fl. oz. j; Aquæ Calidæ, Civ. Mix. For a footbath. *In dyspepsia, with derangementof the liver and constipation. To be used in a wooden or earthenware vessel.*

121. *Alkaline Bath.*

℞. Sodæ Carbonatis, lb. 1; Aquæ Ferventis, Cxxx. Mix. *In the lithic acid diathesis, chronic squamous diseases of the skin, chronic rheumatism &c.*

122. *Conium and Starch Bath.*

℞. Extracti Conii, gr. 120; Pulveris Amyli, lb. 1; Aquæ Ferventis, Cxxx. Mix, for a bath. *In certain skin diseases, attended with great irritability.*

123. *Creasote Bath.*

℞. Creasoti, fl. drs. ij; Glycerini, fl. oz. ij; Aquæ Ferventis, Cxxx. Mix. *In squamous diseases of the skin.*

124. *Iodine Bath.*

℞. Iodinii, gr. 60; Potassii Iodidi, oz. ½; Liquoris Potassæ, fl. oz. ij; Aquæ Calidæ, Cxxx. Mix. *In scrofula, chronic rheumatism, secondary syphilis, and ceratni skin diseases.*

125. *Sulphur Baths.*

℞. Potassæ Sulphuratæ, oz. 4; Aquæ Calidæ, Cxxx. Mix. *Useful in scabies, lead colic, paralysis from lead &c.*

℞. Potassæ Sulphuratæ, oz. 4; Sodæ Hyposulphitæ, oz. 1; Acidi Sulphurici, fl. drm. j; Aquæ Calidæ, Cxxx. Mix.

126. *Iron, or Oak Bark, Baths.*

℞. Ferri Sulphatis, oz. ½; Aquæ, Civ. Mix. *Especially useful for strumous and rickety children.*

℞. Quercûs Contusæ, lb. 1; Aquæ Calidæ, Oij. Mix. Boil for half an hour, and add the strained decoction to three gallons of warm or tepid water. To be used every morning. *For delicate children &c.*

127. *Salt-water Baths.*

℞. Salis Marini (vulgo, "Bay Salt"), lb. ½; Aquæ Tepidæ, Civ. Mix. Make a sponge-bath, to be used every morning. *In general debility, chronic rheumatism &c. The surface of the body should be thoroughly rubbed with a flesh-brush and coarse towels.*

℞. Salis Marini, lb. 2; Magnesiæ Sulphatis, oz. 3; Potassii Iodidi, gr. 120; Liquoris Calcis Chloratæ, fl. oz. iss; Aquæ, Cxxx. Mix.

128. *Arsenical Bath.*

℞. Sodæ Carbonatis, oz. 4; Sodæ Arseniatis, gr. 20; Aquæ Calidæ, Cxxx. Mix. *In rheumatoid arthritis, skin diseases &c.*

129. *Boracic Bath.*

℞. Boracis, oz. 4; Glycerini, fl. oz. iij; Aquæ Calidæ, Cxxx. Mix. *In some squamous and other irritable diseases of the skin.*

130. *The Turkish Bath.*

The general effect of a hot air bath is to increase the force and rapidity of the circulation, and to induce free perspiration; but if too hot or too prolonged the determination of blood to the skin and lungs becomes so great, that the brain suffers. There is then consequently a lowering of the circulation, with depressed nervous power. A temperature varying from 120° to 165° will usually suffice; while if the perspiration is efficient and continuous, and the sensation agreeable, the patient may remain in the calidarium for from forty to sixty minutes.—The bath is *useful* in removing local congestions, in clearing the pores and in inducing a healthy condition of the skin and mucous membranes, in eliminating noxious matters from the blood, and in imparting a sense of elasticity and vigour to the system. It is *injurious* when there is any obstruction to the circulation, or when the heart or vessels are affected with fatty degeneration, or when there are any symptoms of disease of the nervous centres, or when there is a tendency to vertigo or syncope, and in advanced life. Women who are pregnant, or who are menstruating, ought not to have recourse to it.

131. *Mercurial Vapour Baths.*

The patient is seated on a chair, and covered with an oil-cloth lined with flannel, which is supported by a proper frame-work. Under the chair are placed a copper bath containing water, and a metallic plate on which is put from sixty to one hundred and eighty grains of the bisulphuret of mercury, or the same quantity of the grey oxide, or the red oxide of this metal. In syphilitic affections of the skin, testes, and bones, from five to thirty grains of the green iodide of mercury may be employed; or a mixture of twenty grains of the green iodide with ninety grains of the bisulphuret often proves efficacious. Under the bath and plate, spirit-lamps are lighted. The patient is thus exposed to the influence of three agents—heated air, steam, and the vapour of mercury. At the end of five to ten minutes perspiration commences, which becomes excessive in ten or fifteen minutes longer. The lamps are now to be extinguished; and when the patient has become moderately cool, he is to be rubbed dry. He should then drink a cup of warm decoction of guaiacum or sarsaparilla, and repose for a short time.—Langston Parker. *In constitutional syphilis when mercury is indicated. This method of introducing mercury into the system, may also be adopted with benefit in other diseases, in place of administering the metal by the mouth.*

Mr. Henry Lee's mode of proceeding is more simple, and is the one which the author has frequently adopted with great success. A convenient apparatus is used, made by most instrument makers, consisting of a kind of tin case containing a spirit-lamp. In the centre, over the flame, is a small tin plate, upon which from fifteen to thirty grains of calomel are placed; while around this is a sort of saucer filled with boiling water. The lamp having been lighted, the apparatus is placed under a common cane-bottom chair, upon which the patient sits. He is then enveloped, chair and all, in one or more large blankets; and so he remains, well covered up, for about twenty minutes, when the water and mercury will be found to have disappeared. About five minutes afterwards he may put on his shirt and go to bed; but it is better not to use a towel, since it can only be disadvantageous to wipe off the calomel deposited on the skin.

132. *Gelatine Bath.*

Take of Gelatine, or Common Glue, lb. 1; dissolve in a little boiling water, and then add twenty gallons of hot water to form a bath. *In eczema, and other irritable cutaneous affections.*

133. *Mustard Footbath.*

℞. Pulveris Sinapis, oz. 2—4; Aquæ Calidæ, Civ. Mix, for a foot-bath. *In congestions of the head and chest, in some cases of amenorrhœa &c.*

134. *Cold Affusion.*

The patient is seated in an empty bath, and from four to six buckets of cold water (about 40° F.) are poured over his head and chest from a height of two or more feet. He is then quickly dried, and replaced in bed. The colder the water and the greater the height from which it is poured, the more stimulating the effect. Affusion, as thus practised by Dr. Currie, proved very valuable in the treatment of typhus. It may be resorted to when the temperature of the body is permanently above its normal (about 98.4° F.) standard, when there is no feeling of chilliness, when the body is not wholly bathed in sweat, when there is not much irritability of the nervous system, and when there is great stupor. The effect is to lower the temperature, to lessen the frequency of the pulse and respiration, to render the tongue moist and soft, to diminish or remove the stupor, to procure sleep, and sometimes to produce a critical perspiration. It may be used every twenty-four hours if necessary.

When it is desirable to apply a *douche-bath* to one or more of the joints it is only necessary to affix two or three yards of large-sized India-rubber tubing to the tap of a cistern. The patient must sit in an empty bath, into which the water may fall as it plays upon the limb.

135. *The Shallow Bath.*

The patient sits in a bath some six feet long, with a depth of water (temperature 60° to 80° F.) varying from eight to twelve inches. The extremities and trunk are well rubbed by an assistant, while water is gently poured over the head. The duration of the bath ought to vary from five minutes to three-quarters of an hour, until the temperature of the body is lowered. The colder the water and the shorter the stay in it, the more stimulating and less sedative will be the effect. This bath is less exciting than the cold affusion, and is chiefly indicated where the latter would be improper,—*i.e.*, where there is much nervous irritability. It is also better for women, who seldom bear the cold affusion.

As a substitute for the shallow bath the *dripping-sheet* is sometimes used. The patient stands upright in an empty bath, while the attendant, placed at his back, suddenly envelopes him in a sheet dipped into water. The surface of the body is quickly rubbed by the servant's flat hands for some three minutes, until the bather is in a glow; when a dry sheet is quickly substituted for the wet one, and the rubbing continued. The whole process should be over in five or six minutes.

136. *Wet-sheet Packing &c.*

The patient is closely enveloped in a sheet which has been dipped in cold or tepid water and well wrung out. He is then carefully wrapped in a blanket, covered with three or more blankets, and a down coverlet is tucked over all. He should remain thus for 30, 45, or 60 minutes, lying on his side, or in a semi-recumbent position; the duration being timed by the sedative effect produced. The sweating is not generally excessive. But the water, urea, and chloride of sodium of the urine are slightly increased; this increase being considerable when the sheet is continued for four hours. At the conclusion the shallow bath may be used for two or three minutes, as a tonic.

A *blanket-bath* affords an easy means of inducing sweating. A blanket is wrung out of hot water, and wrapped round the patient. He is to be packed in three or four dry blankets, and allowed to repose for thirty minutes. The surface of the body should then be well-rubbed with warm towels, and the patient made comfortable in bed.

The *wet-compress* consists merely of a roll of flannel or calico, dipped in cold water and wrung out, and then applied around the seat of pain. Over this a piece of waterproof cloth is to be worn.

137. *The Warm Bath as a Cooling Agent.*

The warm bath at a temperature of 95° F. must prove a cooling agent to the body of a fever patient at 100° or 105° F. The immersion should continue from fifteen minutes to an hour or longer. Its sedative effects render it valuable where the nervous system is irritable.

In cases of delirium tremens with high fever, *cold superfusion* may be used while the patient is held in the warm bath. From ten to thirty buckets of cold water are to be poured slowly over the head; hot water being continually added to the bath to maintain its heat at 95° F. This treatment generally produces sound sleep.

138. *Acid Sponging.*

One part of vinegar is to be added to two to three of cold water, and the body well sponged with the mixture. Simple tepid water may sometimes be advantageously used. The patient being weak and unable to move, the sponging must be done by degrees;—*i.e.* the arms, chest, back, and legs are to be rapidly washed and dried. *In many cases of fever, inflammation, scarlatina &c.*

VIII. CATHARTICS AND ANTHELMINTICS.

139. *The Common Black Draught.*

℞. Magnesiæ Sulphatis, gr. 120; Mannæ, gr. 160; Tincturæ Sennæ, fl. drs. ij; Infusi Sennæ, ad fl. oz. iss. Make a draught. To be taken early in the morning.

140. *Calomel, Jalap, and Epsom Salts.*

℞. Calomelanos, gr. 5; Pulveris Jalapæ, gr. 15. Make a powder. To be taken immediately; with the following draught three hours afterwards:—

℞. Magnesiæ Sulphatis, gr. 120; Mannæ, gr. 60; Tincturæ Jalapæ, fl. drs. ij; Aquæ Carui, ad fl. oz. iss. Mix. *A good active purgative in head affections &c. as well as at the commencement of many acute diseases.*

141. *The White Mixture of Hospitals.*

℞. Magnesiæ Sulphatis, oz. 1½; Magnesiæ Carbonatis, gr. 120; Aquæ Menthæ Piperitæ, fl. oz. viij. Mix. The addition of two fluid drachms of Colchicum wine is sometimes advantageous. One-sixth part early every morning,

142. *Epsom Salts and Sulphuric Acid.*

℞. Magnesiæ Sulphatis, oz. 2; Acidi Sulphurici Diluti, fl. drs. iss; Tincturæ Hyoscyami, fl. drs. iij; Infusi Quassiæ, ad. fl. oz. viij. Mix. One-sixth part two or three times a day. *In painter's colic, copper colic &c.*

℞. Magnesiæ Sulphatis, oz. ½; Infusi Rosæ Acidi, fl. oz. ij. Make a draught. To be taken early in the morning. *In mild febrile affections with constipation.*

143. *Glauber's Salts and Sulphuric Acid.*

℞. Sodæ Sulphatis, gr. 120; Ferri Sulphatis, gr. 3; Acidi Sulphurici Diluti, min. xv; Tincturæ Hyoscyami, min. xx; Infusi Calumbæ, fl. oz. ij. Make a draught. To be taken the first thing in the morning. *In obstinate constipation with debility.*

℞. Sodæ Sulphatis, gr. 240; Acidi Sulphurici Diluti, fl. drm. j; Infusi Gentianæ Compositi, fl. oz. vj. Mix. Three tablespoonfuls to be taken daily, after luncheon or dinner. *In habitual constipation with flatulence.*

144. *Glauber's Salts and Taraxacum.*

℞. Sodæ Sulphatis, gr. 120; Succi Taraxaci, fl. drs. iss; Decocti Taraxaci, fl. oz. ij. Make a draught. To be taken every morning before breakfast. *In constipation with deficient secretion of bile.* See F. 148.

145. *Aloes, Senna, and Jalap.*

℞. Tincturæ Sennæ, Tincturæ Jalapæ, āā fl. drs. ij; Infusi Sennæ, fl. oz. ij; Decocti Aloes Compositi, fl. oz. vss. Mix. Two tablespoonfuls to be taken night and morning.

146. *Rhubarb, Gentian, and Senna.*

℞. Tincturæ Rhei, fl. drs. ij; Infusi Gentianæ Compositi, Infusi Sennæ, āā fl. drs. vij. Make a draught. To be taken every morning an hour before breakfast. *A mild aperient in gouty dyspepsia.*

147. *Nitric Acid, Senna, and Taraxacum.*

℞. Acidi Nitrici Diluti, fl. drs. iss; Spiritûs Ætheris Nitrosi, fl. drs. ij; Succi Taraxaci, fl. oz. iss; Tincturæ Sennæ, fl. oz. iv; Infusi Gentianæ Compositi, ad fl. oz. viij. Mix. One-sixth part twice or thrice daily. *In dyspepsia with debility and constipation. Also in passive hepatic congestion, in amenorrhœa with a loaded liver &c.*

148. *Alkaline Aperients.*

℞. Decocti Aloes Compositi, Infusi Gentianæ Compositi, āā fl. oz. iv; Liquoris Potassæ, fl. drs. ij. Mix. One-sixth part early every morning. *Useful in bilious headache.*

℞. Sodæ Sulphatis, oz. 1½; Sodæ Phosphatis, oz. 1; Syrupi Zingiberis, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. Three large tablespoonfuls immediately; the dose to be repeated after two hours, unless the bowels should be freely acted on.

℞. Sodæ Sulphatis, Sulphuris Præcipitati, āā oz. 1½. Mix. Label,—"One teaspoonful in a tumblerful of milk and water early in the morning."—*In rheumatoid arthritis, chronic rheumatism, sciatica &c.*

149. *Phosphate of Soda and Aloes.*

℞. Extracti Rhei, gr. 10; Sodæ Phosphatis, gr. 60; Decocti Aloes Compositi, fl. drs. vj; Aquæ Menthæ Viridis, ad fl. oz. ij. Make a draught. To be taken at bed-time. *In some forms of chronic gout, jaundice from gall-stones &c.*

150. *Aloes, Senna, and Epsom Salts.*

℞. Vini Aloes, fl. drs. ij; Infusi Sennæ, fl. drs. xiv; Magnesiæ Sulphatis, oz. ½. Mix. Half of this mixture to be taken about 7 o'clock in the morning, and the remainder two hours after breakfast, if required.

151. *Jalap and Senna.*

℞. Tincturæ Sennæ, fl. oz. j; Tincturæ Jalapæ, fl. drs. ij; Vini Colchici, fl. drm. j; Aquæ Pimentæ, fl. oz. ij. Mix. Label,—"Half of this draught immediately, and the remainder in six hours, if necessary."

℞. Pulveris Jalapæ Compositi, gr. 30; Syrupi Sennæ fl. drm. j; Aquæ Camphoræ, fl. drs. xj. Make a draught. To be taken early every morning. *In dropsy.*

152. *Saline Purgative.*

℞. Vini Antimoniale, fl. drm. j; Magnesiæ Sulphatis, oz. ½; Liquoris Ammoniæ Acetatis, fl. drs. iv; Syrupi Papaveris, fl. drs. vj; Aquæ Camphoræ, ad fl. oz. viij. Mix. One-eighth part two or three times in the twenty-four hours. *In hepatic congestion &c.*

153. *Sulphur and Magnesia.*

℞. Magnesiæ Carbonatis, gr. 20; Sulphuris Præcipitati, gr. 25; Sodæ Bicarbonatis, gr. 10; Pulveris Zingiberis, gr. 3. Make a powder. To be taken early in the morning in a tumblerful of milk. *A valuable aperient for delicate females subject to rheumatism. Also in some skin diseases.*

154. *Steel and Aloes.*

℞. Ferri Sulphatis Granulatæ, gr. 2; Pilulæ Aloes et Myrrhæ, gr. 3. Make a pill, to be taken thrice daily after meals. *In amenorrhœa, chlorosis, hysteria with constipation and debility &c.* See F. 421.

155. *Pepsine and Aloes.*

℞. Pepsinæ Porci, gr. 32; Extracti Aloes Barbadensis, gr. 8; Glycerini, sufficient to make a mass. Divide into eight pills, silver them, and order one to be taken every day at dinner. *In dyspepsia, some diseases of the rectum, certain forms of suppressed menstruation &c.*

156. *Aloes and Galbanum.*

℞. Pilulæ Aloes et Myrrhæ, Pilulæ Assafœtidæ Compositæ, āā gr. 5. Make two pills. To be taken night and morning. *In hysteria with attacks of flatulent colic, and in some forms of amenorrhœa.*

157. *Elaterium, or Wild Cucumber.*

℞. Liquoris Ammoniæ Acetatis, fl. drm. j; Spiritûs Ætheris Nitrosi, fl. drs. iv; Elaterii, gr. 1; Syrupi Zingiberis, fl. drs. iij. Mix. Direct,—"One small teaspoonful in a wineglassful of water every two hours, until the bowels are freely acted on." *In the early stages of acute dropsy with albuminuria.*

℞. Elaterii, gr. 1½; Pulveris Capsici, gr. 9; Calomelanos, gr. 12; Extracti Hyoscyami, gr. 18. Make a mass, divide into twelve pills, and order two to be taken for a dose. *If a very active purgative is required the quantity of elaterium may be doubled. The capsicum prevents the nausea which elaterium often produces.*

℞. Elaterii, gr. 1; Extracti Gentianæ, gr. 12. Divide into four pills, and order one to be taken every night. *In dropsical effusions, and where it is desirable to produce copious watery stools.*

158. *Gamboge and Galbanum.*

℞. Pilulæ Cambogiæ Compositæ, Pilulæ Assafœtidæ Compositæ, āā gr. 5. Make two pills. To be taken every night at bed-time. *A good drastic hydragogue cathartic, acting chiefly upon the small intestines.*

159. *Calomel and Jalap &c.*

℞. Calomelanos, gr. 2—3; Pulveris Scammonii Compositi, gr. 4; Pulveris Aromatici, gr. 5. Mix, for a powder to be taken at bed-time. *A valuable purgative in the cerebral affections of children: also in cases of threadworm.*

℞. Calomelanos, gr. 2; Extracti Jalapæ, gr. 8. Make into two pills, and order them to be taken at bed-time. *In cerebral affections &c.*

℞. Calomelanos, gr. 5; Pulveris Jalapæ Compositi, gr. 20—40. Make a powder, to be taken every night at bed-time. *A good hydragogue cathartic. The calomel increases the effect of the jalap and acid tartrate of potash (cream of tartar).*

℞. Calomelanos, gr. 2; Pulveris Rhei, gr. 20; Pulveris Zingiberis, gr. 2. Mix. To be taken as a bolus, in a little wafer paper, at bed-time.

160. *Podophyllum Peltatum, or May-apple.*

℞. Podophylli Resinæ, gr. ½; Pulveris Rhei, gr. 5; Extracti Hyoscyami, gr. 3. Make two pills. To be taken every night at bed-time. *As a purgative in jaundice from suppression, in torpid liver, and in dropsy from cardiac or renal or hepatic disease. Podophyllin produces copious bilious stools; but is rather uncertain, and is apt to gripe unless combined with henbane.*

℞. Podophylli Resinæ, gr. 6; Pulveris Zingiberis, gr. 20; Extracti Hyoscyami, gr. 24. Make a mass, divide into twelve pills, and order two to be taken every other night at bed-time. *As a drastic purgative in dropsy.* See F. 30.

161. *Ammonia and Rhubarb.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. iij; Tincturæ Rhei, fl. drs. iv; Infusi Rhei, ad fl. oz. vj. Mix. One-sixth part to be taken night and morning.

162. *Gentian, Ether, and Rhubarb.*

℞. Tincturæ Rhei, fl. oz. j; Tincturæ Gentianæ Compositæ, fl. drs. iv; Spiritûs Ammoniæ Aromatici, Spiritûs Ætheris, āā fl. drs. iij; Aquæ Pimentæ, fl. oz. iv. Mix. Two tablespoonfuls to be taken occasionally. *In cases of colic, flatulence, nausea or languor, where a warm stomachic aperient is needed.*

163. *Hellebore and Colchicum.*

℞. Tincturæ Hellebori (Phar. Lond. 1851), min. xxx; Vini Colchici, min. xxv; Tincturæ Rhei, fl. drs. ij; Aquæ Camphoræ, ad fl. oz. iss. Make a draught. To be taken occasionally early in the morning. *Useful in gout, chronic rheumatism &c.*

164. *Castor Oil.*

℞. Olei Ricini, fl. drs. ij—iv. To be taken occasionally about 11 A.M. The taste of castor oil is entirely destroyed by mixing it with a teacupful of well-salted and peppered beef-tea.

℞. Mucilaginis Tragacanthæ, fl. oz. ij; Aquæ Cinnamomi, fl. oz. iij; Olei Ricini, fl. drs. xij; Tincturæ Rhei, Syrupi Aurantii, āā fl. drs. vj; Tincturæ Opii, min. xxx. Mix. One-eighth part every three hours. *In dysentery, when there are scybala in the rectum. Also where an aperient with a sedative is indicated.*

165. *Rhubarb and Magnesia, or Soda.*

℞. Magnesiæ Carbonatis, gr. 120; Pulveris Rhei, gr. 60; Pulveris Aromatici, gr. 40; Aquæ Menthæ Piperitæ, fl. oz. vj. Mix. Two tablespoonfuls to be taken every morning.

℞. Pulveris Rhei, Sodæ Bicarbonatis, āā gr. 20; Infusi Rhei, fl. oz. 1. Make a draught. To be taken early in the morning two or three times a week. *For gouty and rheumatic subjects.*

The officinal PULVIS RHEI COMPOSITUS, in doses of 20 to to 120 grains, is a valuable mild aperient where the intestinal secretions are deranged or diminished in quantity. *It is commonly known as* GREGORY'S *powder.*

166. *Epsom Salts and Sulphate of Iron.*

℞. Magnesiæ Sulphatis, gr. 120; Ferri Sulphatis, gr. 4; Acidi Sulphurici Diluti, min. xv; Extracti Quassiæ, gr. 20; Aquæ Pimentæ, fl. oz. iss. Make a draught. To be taken early in the morning. *In constipation with general debility.*

167. *Colocynth and Tartarated Antimony.*

℞. Pilulæ Colocynthidis et Hyoscyami, gr. 56; Antimonii Tartarati, gr. 4. Divide into twelve pills, and order one to be taken every night at bed-time. *A valuable purgative in the cerebral congestions of strong subjects.*

168. *Croton Oil.*

℞. Olei Crotonis, min. j—ij; Olei Caryophili, min. ij; Micæ Panis, sufficient to make a pill. To be taken immediately, and repeated in two hours if necessary.

℞. Olei Crotonis, min. ij; Butyri Cacao, gr. 30. Make a suppository. To be introduced into the rectum early in the morning.

℞. Olei Crotonis, min. j—ij; Pilulæ Colocynthidis Compositæ, gr. 30; Pilulæ Assafœtidæ Compositæ, gr. 60. Make a mass, divide into eighteen pills, and order three to be taken every night at bed-time. *In cases of sciatica, obstinate neuralgia &c. with constipation.*

169. *Seidlitz Powder.*

℞. Sodæ Bicarbonatis, gr. 40; Sodæ et Potassæ Tartratis, gr. 120. Mix, and make an effervescing draught with thirty-seven grains of Tartaric or Citric Acid dissolved in a tumblerful of water.

The Effervescent Citrate of Magnesia, in doses of a couple of teaspoonfuls, in a small tumblerful of water, is a very agreeable and mild aperient.

170. *Purified Ox Bile.*

℞. Ammoniæ Carbonatis, gr. 34; Fellis Bovini Purificati, gr. 36. Make a mass, divide into twelve pills, silver them, and order one to be taken three hours after each of the principal meals. *In dyspepsia with nausea, constipation, and a deposit of urates in the urine.*

℞. Pulveris Rhei, gr. 24; Fellis Bovini Purificati, gr. 20; Olei Carui, min. x; Pilulæ Assafœtidæ Compositæ, gr. 18. Make a mass, divide into twelve pills, and order two to be taken every night two hours after supper. *To prevent an accumulation of fæces, when the large intestines are torpid. Also where there is a deficiency of bile.*

℞. Pilulæ Colocynthidis et Hyoscyami, Fellis Bovini Purificati, Extracti Lupuli, āā gr. 20. Make a mass, divide into twelve pills, silver them, and order one to be taken every day three hours after dinner. *In constipation with flatulence and imperfect digestion of the food.*

℞. Magnesiæ Carbonatis, gr. 30; Tincturæ Jalapæ, fl. drs. ij; Tincturæ Sennæ, fl. oz. j; Fellis Bovini Purificati, gr. 30; Aquæ Camphoræ, ad fl. oz. iv. Mix, and label,—"Half of this mixture immediately, and the remainder in three hours if necessary."—*A valuable purgative when the rectum is blocked up by hardened fæces.*

Capsules containing pig's bile, evaporated to dryness, have been prepared according to the directions of Dr. Harley. Each capsule contains five grains of prepared bile,—equal to one hundred grains of liquid bile fresh from the gall-bladder. Two or three are to be taken for a dose, about two hours after a meal; when, stomachal digestion being nearly completed, the chyme is ready to pass into the duodenum. The capsules imbibe moisture in the stomach; and then, in their soft swollen condition, generally get ruptured as they pass through the pylorus. In this way the bile is mingled with the chyme at the same time that this happens in the healthy organism. *In jaundice from long-continued obstruction. Also in some forms of duodenal dyspepsia arising from sedentary habits.*

171. *Rhubarb, Mercury, and Henbane.*

℞. Pilulæ Hydrargyri (*vel* Hydrargyri cum Creta), Pilulæ Rhei Compositæ, Extracti Hyoscyami, āā gr. 20. Mix, divide into twelve pills, and order two to be taken occasionally at bed-time.—*Where a stronger purgative is required the compound colocynth may be substituted for the compound rhubarb pill.*

172. *Sulphate of Manganese.*

℞. Manganesii Sulphatis, gr. 180; Vini Colchici, min. xv; Infusi Sennæ, Infusi Gentianæ Compositi, āā fl. oz. j. Make a draught, to be taken early in the morning. *In gouty or rheumatic habits, with a deficient secretion of bile.*

173. *Colocynth and Assafœtida.*

℞. Pilulæ Colocynthidis et Hyoscyami, Pilulæ Assafœtidæ Compositæ, āā gr. 5. Mix into two pills. To be taken occasionally at bed-time. *In constipation with flatulence. A valuable purgative for hypochondriasis.*

174. *Gamboge, Aloes, and Blue Pill.*

℞. Pilulæ Cambogiæ Compositæ, gr. 5; Pilulæ Hydrargyri, gr. 3. Make two pills. To be taken night and morning. *In dropsy from cardiac or hepatic disease, where a drastic purgative is required.*

175. *Extract of Nux Vomica.*

℞. Extracti Nucis Vomicæ, gr. 3; Pulveris Ipecacuanhæ, gr. 6; Pilulæ Rhei Compositæ, *vel* Pilulæ Aloes et Assafœtidæ, gr. 40. Make a mass, divide into twelve pills, and order two to be taken every alternate night at bed-time. *In habitual constipation from atony of the coats of the bowel, with deficient secretion of intestinal mucus.*

℞. Extracti Nucis Vomicæ, gr. 2; Extracti Aloes Barbadensis, gr. 6; Extracti Rhei, gr. 20. Mix and divide into six pills. One to be taken every day at dinner. *In some diseases of the rectum &c.*

℞. Extracti Hyoscyami, gr. 40; Pilulæ Colocynthidis Compositæ, gr. 20; Extracti Nucis Vomicæ, gr. 3. Mix, and divide into twelve pills. Two to be taken every night. *In habitual constipation. They may be continued for about ten days.* See F. 378, 387, and 409.

176. *Rhubarb and Magnesia for Infants.*

℞. Pulveris Rhei, gr. 15; Magnesiæ Carbonatis, gr. 60; Aquæ Anethi, fl. oz. iss. Mix, and order one teaspoonful to be taken every two hours until the bowels are freely acted on.

177. *Sulphate of Zinc.*

℞. Zinci Sulphatis, Extracti Gentianæ, āā gr. 5. Make into two pills, and order them to be taken three times a day. *Recommended by* Mr. Baly, *in habitual constipation, after the bowels have been cleared out with a purgative of calomel and colocynth. The pills should be taken immediately after meals, for two or three weeks.*

178. *Quinine and Rhubarb.*

℞. Quiniæ Sulphatis, gr. 2; Extracti Lupuli, gr. 5; Pilulæ Rhei Compositæ, gr. 3. Mix into two pills, and order them to be taken every day at dinner. *Useful in some forms of dyspepsia.*

179. *Ipecacuan, Rhubarb, and Oxide of Silver.*

℞. Pulveris Ipecacuanhæ, gr. 1; Pulveris Rhei, gr. 3; Argenti Oxidi, gr. 1; Confectionis Rosæ Caninæ, sufficient to form a pill. *A good dinner pill where there is uneasiness and oppression after meals, the result of slow digestion.*

180. *Steel, Glauber's Salts &c.*

℞. Ferri Sulphatis Granulatæ, gr. 10; Sodæ Sulphatis, Magnesiæ Sulphatis, āā oz. 1; Sodii Chloridi, gr. 120; Aquæ, Oj. Mix. Four tablespoonfuls in a tumblerful of warm water early in the morning. *A rough imitation of the Cheltenham Waters. Useful in debility with constipation.*

181. *Steel, Glauber's Salts, and Soda.*

℞. Sodæ Bicarbonatis, gr. 60; Sodii Chloridi, gr. 4; Sodæ Sulphatis, gr. 10; Magnesiæ Sulphatis, gr. 3; Ferri Sulphatis, gr. ½—1; Aquæ, Oj. Mix. By adding forty grains of Citric Acid an effervescing water is produced. *A rough imitation of the Vichy Waters. In some forms of chronic gout &c.*

℞. Sodæ Sulphatis, gr. 120—240; Sodæ Carbonatis, gr. 20; Sodii Chloridi, gr. 15; Cretæ Preparatæ, gr. 10; Ferri Carbonatis Saccharatæ, gr. 15. Make a powder, and direct it to be taken early in the morning in half a pint of water. *An imitation of the Carlsbad Waters.*

182. *Kamela, as an Anthelmintic.*

℞. Pulveris Kamelæ, gr. 60—180, *vel* Tincturæ Kamelæ, fl. drs. ij; Syrupi Aurantii, fl. drs. ij; Mucilaginis Tragacanthæ, fl. oz. iss; Aquæ, ad fl. oz. iij. Make a draught. To be taken early in the morning. A purgative should be administered six hours afterwards. Kamela is an orange-red resinous substance found adhering to the capsules of the Rottlera tinctoria, and is imported from India. *Strongly recommended in tapeworm.*

183. *Turpentine, as an Anthelmintic.*

℞. Olei Ricini, fl. drs. iv; Olei Terebinthinæ, fl. drs. iij; Mucilaginis Tragacanthæ, fl. drs. iv; Syrupi Zingiberis, fl. drm. j; Aquæ, fl. drs. iv. Make a draught, to be taken early in the morning. *In tapeworm &c.*

184. *Kousso, as an Anthelmintic.*

℞. Cusso, in pulvere, gr. 240; Mellis Depurati, sufficient to make an electuary. Label,—"Half of this electuary to be taken early in the morning, and the remainder six hours afterwards." *In tapeworm.*

The officinal Infusum Cusso may also be taken in the same way, in doses of fl. oz. iv.

185. *Santonin, as an Anthelmintic.*

℞. Santonini, gr. 2—6; Sacchari Lactis, gr. 15. Make a powder. To be taken early in the morning, suspended in a tablespoonful of cream. The patient ought to have fasted for twelve hours previously. The dose may be repeated for eight or ten days, if necessary; and its exhibition should be followed at the end of six hours by the administration of an ounce of the Compound Decoction of Aloes. *A specific for the ascaris lumbricoides. Less useful for the tænia solium and oxyuris vermicularis. The patient should be warned that after a few doses the sight sometimes becomes perverted, so that objects seem to acquire a blue or yellow or some other colour.*

186. *Pomegranate, as an Anthelmintic.*

℞. Spiritûs Ætheris, fl. drm. ss—j; Decocti Granati Radicis, fl. oz. j—ij. Make a draught. To be taken every three hours until four doses have been used.

℞. Granati Radicis Corticis, gr. 180; Pulveris Sabadillæ, gr. 6; Pulveris Aromatici, gr. 60. Mix, and divide into six powders. One to be taken every two hours until the whole is consumed. *More active than the preceding. A saline purge should be given after the last dose.*

187. *Male Fern, as an Anthelmintic.*

℞. Extracti Filicis Liquidi, fl. drs. j—ij; Syrupi Zingiberis, fl. drs. ij; Mucilaginis Tragacanthæ, fl. oz. j; Aquæ, ad fl. oz. iv. Make a draught. To be taken early in the morning; only liquid nourishment having been allowed the previous day. Four hours afterwards a purgative dose of castor oil or aloes should be administered. *Especially useful for destroying tapeworms.*

188. *Simple Enemata.*

℞. Sodii Chloridi, oz. 1; Decocti Hordei, fl. oz. xij. Mix, to form an Enema. *In simple constipation, to destroy oxyurides &c.*

℞. Olei Olivæ, fl. oz. vj—viij. To be warmed and then injected into the rectum. It should be retained for twelve or eighteen hours. *Very useful in structural disease of the bowel, impaction of hardened fæces &c.*

℞. Olei Olivæ, fl. drs. xij; Magnesiæ Sulphatis, gr. 220; Decocti Hordei, ad fl. oz. xij. Mix, for an Enema.

℞. Saponis Mollis, oz. 1; Aquæ Calidæ, fl. oz. xij. Mix, for an Enema.

189. *Castor Oil and Rue Enema.*

℞. Olei Rutæ, min. vj; Olei Ricini, fl. oz. j; Tincturæ Assafœtidæ, fl. drs. ij; Decocti Avenæ, fl. oz. vij. Mix. *Exceedingly useful in flatulent colic.*

190. *Castor Oil and Turpentine Enema.*

℞. Olei Ricini, fl. drs. xij; Olei Terebinthinæ, fl. drs. iv; Tincturæ Assafœtidæ, fl. drs. ij; Decocti Avenæ, ad fl. oz. xij. Mix. *In obstinate constipation. It should be thrown up into the bowel by means of a long tube like that of the stomach-pump.*

191. *Croton Oil Enema.*

℞. Olei Crotonis, min. vj; Olei Ricini, fl. oz. j; Olei Terebinthinæ, fl. drs. ij; Decocti Hordei, ad fl. oz. vj. Mix. *In obstinate constipation. It should be retained for three or four hours, if possible.*

192. *Steel Enema.*

℞. Tincturæ Ferri Perchloridi, fl. drs. j—iij; Infusi Quassiæ, fl. oz. viij. Mix. *To destroy oxyurides. It has often seemed advantageous to the Author to administer a dose of calomel and scammony at the same time.*

193. *Tobacco Enema.*

℞. Tabaci Communis, gr. 15; Aquæ Bullientis, fl. oz. viij. Mix. *To be employed cautiously in some exceptional cases of strangulated hernia, obstinate constipation &c.*

194. *Purgative Electuaries.*

℞. Confectionis Sennæ, Potassæ Tartratis Acidæ, Succi Taraxaci, āā oz. 1. Mix. One teaspoonful to be taken occasionally, an hour before breakfast. *In constipation with inactive liver, or hæmorrhoids.*

℞. Confectionis Piperis, Syrupi Sennæ, Confectionis Sulphuris, āā oz. 1; Pulveris Jalapæ, gr. 10. Mix. One teaspoonful every morning. *In constipation with chronic rheumatism.*

℞. Confectionis Sennæ, Confectionis Scammonii, Syrupi Zingiberis, āā oz. 1; Ferri Carbonatis Saccharatæ, gr. 220. Mix. One teaspoonful early every morning. *In some forms of constipation and want of tone.*

IX. CAUSTICS AND COUNTER-IRRITANTS.

195. *Acid Solution of Nitrate of Mercury.*

℞. Liquoris Hydrargyri Nitratis Acidi, fl. drs. ij; Pulveris Tragacanthæ Compositi, sufficient to make a mass.—*Instead of this paste it is sometimes better to apply the caustic fluid itself, in certain cases of cancer or lupus. The solution may also be carefully used to sloughing ulcers, boils, small nævi &c. It is to be very lightly painted on by means of a glass brush, or a glass rod.*

196. *Chromic Acid.*

℞. Acidi Chromici, gr. 60; Aquæ, fl. drs. iv. Mix. *To destroy warts, small growths of epithelial cancer &c.*

197. *Chloride of Zinc &c.*

℞. Bromii Chloridi, Zinci Chloridi, Auri Chloridi, Antimonii Chloridi, of each equal parts. Mix into a paste of sufficient thickness with flour or powdered liquorice. *To destroy cancerous growths. Commonly known as* LANDOLFI'S *paste.*

℞. Sanguinariæ Canadensis, oz. ½—1; Zinci Chloridi, oz. ½—2; Aquæ, fl. oz. ij; Farinæ, sufficient to make a paste. Mix. *The paste thus formed should have the consistence of treacle. This is the caustic which was employed by* DR. FELL.

℞. Zinci Chloridi, gr. 30—60; Farinæ, gr. 120; Aquæ Destillatæ, sufficient to form a mass. To be applied over the diseased surface.

198. *Super-Sulphate of Zinc.*

Take half a fluid ounce of sulphuric acid, and saturate it with sulphate of zinc, previously dried and powdered. SIR J. Y. SIMPSON recommends that this caustic should be used by dipping a pen in it, and then drawing lines across the tumour, so as to eat through the skin in a few minutes. The fissures thus made are to be filled with the paste; renewing the scratching and caustic every day or two. In this way, five or eight days may suffice for the removal of a good sized tumour. By this combination also we can penetrate deeply without hardening the parts and without fear of producing hæmorrhage.—*This is a very valuable caustic, and has been found particularly useful by the Author for the removal of cancerous tumours of the breast &c. The pain which it produces will be best mitigated by employing the subcutaneous injection of morphia* (F. 314) *at each application.*

199. *Arsenical Mucilage.*

℞. Acidi Arseniosi, Pulveris Acaciæ, āā oz. 1; Aquæ, fl. drs. v. Mix. DR. MARSDEN *speaks highly of this caustic in epithelioma. The affected part is to be painted over with it night and morning; taking care rigorously to*

limit the application to the diseased parts, and not to let it extend over more than one superficial inch at a time. As the part sloughs, its separation is to be aided by bread and water poultices; and when all the disease has been got rid of by the repeated applications of the mucilage, a carrot poultice is to be applied during the night, and a weak black wash (calomel gr. 60 to lime water Oj) during the day until the part is healed.

200. *Lime and Arsenic Powder.*

℞. Calcis recentis, oz. ½; Arsenici Sulphureti Flavi, gr. 20; Pulveris Amyli, gr. 180. Mix, to form a powder. *To be used very cautiously as a depilatory powder.*

201. *Red Oxide of Mercury Powder.*

℞. Hydrargyri Oxidi Rubri, Aluminis, āā gr. 60. Make a powder. *To be sprinkled over exuberant and spongy granulations.*

202. *Carbonate of Copper Ointment.*

℞. Cupri Carbonatis, gr. 60; Adipis Preparati, oz. ½. Mix, to form an ointment. DEVERGIE.—*In chronic eczema and impetigo of the scalp where stimulating applications are required.*

203. *Dupuytren's Arsenic and Calomel Powder.*

℞. Acidi Arseniosi, gr. 12; Calomelanos, oz. 1. Mix. *In ulcerated lupus. Must be cautiously used.*

204. *Vienna Caustic.*

℞. Potassæ Hydratis, Calcis, āā oz. 1. Mix thoroughly. *This paste is diluted with alcohol, and applied with a spatula over a small surface. It is identical with the Potassa cum calce of the London Pharmacopœia.*

205. *Iodine Paint.*

℞. Iodinii, gr. 40—60; Potassii Iodidi, gr. 30; Spiritûs Vini Rectificati, fl. oz. j. Mix. *To be applied with a camel's-hair pencil. Very useful in many chronic pains &c.*

℞. Iodinii, Potassii Iodidi, āā grs. 20; Collodii, fl. oz. j. Mix.

The officinal LINIMENTUM IODI may also be used, but it must be diluted with from three to six parts of spirit or glycerine or tincture of aconite.

206. *Tartar Emetic Embrocation.*

℞. Antimonii Tartarati, gr. 40; Aquæ Rosæ, fl. oz. ij. Mix, and then add Tincturæ Cantharidis, fl. oz. j. Make an embrocation. *To be employed if the Unguentum antimonii tartarati (Phar. Brit.) fails to produce the required eruption.*

207. *Croton Oil Liniment.*

℞. Olei Crotonis, min. xxx; Olei Olivæ, fl. drs. ijss. Mix, for a liniment. *To produce rubefaction and a pustular eruption, where counter-irritation is required to relieve diseases of internal organs.* The officinal liniment is only 1 part to 7, and is scarcely strong enough.

208. *Blistering and Epispastic Papers.*

These papers of M. Albespeyre have long been used in this country with great advantage, though they are less appreciated than in France.

They consist of—an epispastic paper for dressing blisters; a dulcifying

paper for issues, causing neither smell nor pain; and blisters formed of an adhesive cloth without a plaster.

The Epispastic Paper, for dressing blisters, is prepared of four degrees of strength, under the designation of No. 1 feeble, No. 1, No. 2, and No. 3. No. 1 feeble possesses the least strength, and is suitable as a dressing for persons of irritable temperament, and for children. No. 1 has rather more salve spread upon it, and is adapted for patients whose blisters have risen well. No. 2 is employed for those whose blisters do not draw sufficiently, and require stimulating. Whilst No. 3 possesses a still stronger power, and is used only in cases where the blister has a tendency to dry up. They all maintain an abundant discharge, without pain or heat; prevent the formation of false membranes; produce no irritation of the urinary passages; and cause no disagreeable smell.

The blisters—applied by the adhesive black side—readily adhere to the skin, producing vesication in a few hours (twelve at the furthest); and, if necessary, the same piece put on four or five times always produces the blistering effect.

X. DIAPHORETICS AND DIURETICS.

209. *Nitre and Ipecacuan.*

℞. Potassæ Nitratis gr. 60, *vel* Potassæ Citratis, gr. 120; Vini Ipecacuanhæ, fl. drs. iss; Syrupi Hemidesmi, fl. oz. j; Decocti Hordei, ad Oj. Mix. One teacupful to be taken every two or three hours. *In severe catarrh with sore-throat.*

210. *Antimony and Opium.*

℞. Vini Antimoniale, fl. drs. j—ij; Liquoris Ammoniæ Acetatis, fl. drs. iv; Extracti Opii Liquidi, min. xxx; Aquæ Camphoræ, ad fl. oz. vj. Mix. One-sixth part three times a day. *Each fluid drachm of the wine contains one-quarter of a grain of antimony.*

211. *Citrate of Potash and Ammonia.*

℞. Potassæ Citratis, gr. 120; Liquoris Ammoniæ Acetatis, fl. drs. iv; Spiritûs Ammoniæ Aromatici, fl. drs. iij; Tincturæ Aconiti, min. xx; Aquæ, ad fl. oz. viij. Mix. One-sixth part every four or six hours. *In pneumonia, and many other acute inflammations. Sometimes it is preferable to give only the Solution of Acetate of Ammonia diluted with water (one fluid drachm to two ounces).*

212. *Ether and Ammonia.*

℞. Potassæ Nitratis, gr. 30—60; Spiritûs Ætheris Nitrosi, fl. drs. iij; Liquoris Ammoniæ Acetatis, fl. drs. iv; Aquæ Camphoræ, ad fl. oz. viij. Mix. One-sixth part three or four times a day. *In the early stages of many febrile and inflammatory disorders.*

℞. Ammoniæ Carbonatis, gr. 18—30; Spiritûs Chloroformi, fl. drs. vj; Vini Colchici, min. xxx; Liquoris Ammoniæ Acetatis, fl. drs. iij—vj; Mucilaginis Tragacanthæ, fl. oz. iv; Aquæ, ad fl. oz. viij. Mix. One-sixth part every four hours. *Valuable in some forms of pneumonia &c.*

213. *Dover's Powder and Antimony &c.*

℞. Pulveris Ipecacuanhæ cum Opio, gr. 5; Antimonii Tartarati, gr. ¼. Mix, and make a powder to be taken every six hours.

℞. Pulveris Opii, Pulveris Ipecacuanhæ, āā gr. 1; Potassæ Nitratis, gr. 8. Make a powder, to be taken every night at bed-time. *An improvement on the ordinary Dover's powder.*

214. *Senega and Guaiac.*

℞. Tincturæ Guaiaci Ammoniatæ, fl. drs. iij—vj; Mucilaginis Tragacanthæ, fl. oz. iij. Mix thoroughly together, and then add,—Infusi Senegæ, ad fl. oz. viij. Three tablespoonfuls to be taken thrice daily. *Useful in the latter stages of bronchitis, tonsillitis &c. The action is diaphoretic, diuretic, stimulant, and expectorant.*

℞. Tincturæ Guaiaci Ammoniatæ, fl. drs. ij; Vitelli Ovi, 1. Beat thoroughly together, and then add,—Misturæ Amygdalæ fl. oz. iv. Direct, one-half to be taken twice a day. *In chronic rheumatism.*

215. *Benzoate of Ammonia.*

℞. Ammoniæ Benzoatis, gr. 60—120; Syrupi Hemidesmi, fl. oz. j; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *As a diuretic in dropsy and gout. Also in catarrhal inflammation of the bladder with alkaline urine.*

216. *Ipecacuan and Syrup of Poppies.*

℞. Vini Ipecacuanhæ, fl. drs. ij; Syrupi Papaveris, fl. drs. iij; Mucilaginis Tragacanthæ, fl. oz. j; Aquæ, ad fl. oz. iij. Mix. One teaspoonful every two or three hours. *An infantile cough mixture.*

217. *Antimony and Ipecacuan.*

℞. Vini Antimoniale, fl. drs. iss; Vini Ipecacuanhæ, fl. drs. ij; Syrupi Rhœados, fl. drs. iij; Liquoris Ammoniæ Acetatis, fl. drs. ij; Aquæ, ad fl. oz. vj. Mix. A small tablespoonful every two hours. *A depressing mixture for children two or three years of age.*

218. *Ipecacuan and Syrup of Poppies.*

℞. Vini Ipecacuanhæ, fl. drs. ij; Syrupi Papaveris, fl. drs. iij; Liquoris Ammoniæ Acetatis, fl. drs. ij; Spiritûs Ætheris Nitrosi, fl. drm. j; Aquæ, ad fl. oz. ij. Mix. One teaspoonful every two or three hours. *In the early stage of infantile fever, severe catarrh, bronchitis, and pneumonia.*

219. *Squills, Digitalis, Broom &c.*

℞. Potassæ Acetatis, gr. 120; Syrupi Scillæ, fl. drs. vj; Spiritûs Ætheris Nitrosi, fl. drs. iij; Tincturæ Digitalis, min. xxx.—fl. drm. j; Succi Scoparii, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. One-sixth part every six or eight hours. *As a diuretic in dropsy dependent upon disease of the heart, liver, or peritoneum.*

℞. Tincturæ Scillæ, fl. drs. ij; Tincturæ Camphoræ cum Opio, fl. drs. iv; Liquoris Ammoniæ Acetatis, fl. drs. iv; Decocti Scoparii, ad fl. oz. viij. Mix. One-sixth part three times a day. *Diuretic and diaphoretic. In dropsies unaccompanied by inflammation, and not due to renal disease.*

℞. Spiritûs Juniperi, fl. drs. ij; Potassæ Tartratis Acidæ, oz. 1; Decocti Scoparii, ad fl. oz. xij. Mix. One-sixth part three times a day. *Diuretic and laxative.*

℞. Pulveris Scillæ, gr. 6; Pulveris Digitalis, gr. 8—12; Pilulæ Hydrargyri, gr. 30. Make a mass, divide into twelve pills, and order one to

be taken night and morning with a wineglassful of the DECOCTUM SCOPARII. See F. 224.

220. *Solution of Potash and Digitalis.*

℞. Liquoris Potassæ, fl. drs. j—ij; Spiritûs Ætheris Nitrosi, fl. drs. vj; Tincturæ Croci, fl. drs. iij; Infusi Digitalis, fl. drs. xij; Syrupi, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *A valuable diuretic in some forms of cardiac and hepatic dropsy.*

221. *Nitre, Juniper, and Ether.*

℞. Potassæ Nitratis, gr. 60; Spiritûs Juniperi, fl. drs. j—ij; Spiritûs Ætheris Nitrosi, fl. drs. iij; Decocti Chimaphilæ (Phar. Lond. 1851), ad fl. oz. viij. Mix. One-sixth part every six hours. *A tonic and stimulating diuretic. In scrofula, atonic dropsies, catarrhal inflammation of the bladder, and some skin diseases.*

222. *Buchu and Cream of Tartar.*

℞. Potassæ Tartratis Acidæ, gr. 180; Infusi Bucco, fl. oz. viij. Mix. One-sixth part three times a day. *Diuretic and laxative. In irritable conditions of the bladder owing to excess of uric acid in the urine. Also in chronic rheumatism, dropsy, and some cutaneous diseases.*

223. *Buchu, Borax, and Pareira.*

℞. Boracis, gr. 40; Tincturæ Bucco, fl. drs. vj; Extracti Pareiræ, oz. ½; Decocti Pareiræ, ad fl. oz. viij. Mix. One-sixth part every six or eight hours. *In chronic catarrh of the bladder, calculous affections &c.*

224. *Digitalis, Squills &c.*

℞. Potassæ Citratis, gr. 200; Tincturæ Scillæ, fl. drs. ij; Vini Colchici, fl. drs. iss; Liquoris Ammoniæ Acetatis, fl. drs. ij; Infusi Digitalis, fl. oz. iij; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *Diuretic and sedative. In some forms of dropsy with disease of the mitral valve.*

℞. Pulveris Digitalis, Pulveris Scillæ, āā gr. 12; Extracti Taraxaci, gr. 36. Make a mass, divide into twelve pills, and order one to be taken twice a day. *Valuable as a diuretic in mitral, but injurious in aortic disease.* See F. 219.

225. *Urea.*

℞. Ureæ, gr. 5—15; Syrupi Aurantii, fl. drm. j; Aquæ, fl. oz. j. Make a draught, to be taken every six hours. *Recommended by the Author as a diuretic in dropsy due to cardiac disease.* See *Medical Times and Gazette*, 8 May 1852.

226. *Cantharides and Nitrous Ether.*

℞. Tincturæ Cantharidis, fl. drs. j—ij; Spiritûs Ætheris Nitrosi, fl. drs. iij; Spiritûs Juniperi, fl. drs. iv; Syrupi Zingiberis, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *May be cautiously tried in some cases of suppression of urine. Also in some skin diseases.*

227. *Taraxacum and Nitric Acid.*

℞. Acidi Nitrici Diluti, fl. drm. j; Succi Taraxaci, fl. drs. vj; Decocti Taraxaci, ad fl. oz. viij. Mix. One-sixth part three times a day. *Laxative, alterative, and diuretic. Especially useful in disease of the liver unaccompanied by inflammation.*

228. *Cream of Tartar and Taraxacum.*

℞. Potassæ Tartratis Acidæ, oz. 1; Extracti Taraxaci, gr. 30; Decocti Taraxaci, fl. oz. viij. Mix. One-sixth part three times a day. *In jaundice independent of hepatitis or obstruction of the duct of the gall-bladder.*

229. *Oil of Juniper.*

℞. Olei Juniperi, min. xx; Syrupi Limonis, fl. drs. vj; Mucilaginis Acaciæ, fl. oz. iv; Aquæ, ad fl. oz. viij. Mix. One-sixth part every six or eight hours. *The oil of juniper has not only a diuretic action, but it is also a diaphoretic and an emmenagogue and a cathartic. In too large doses it may cause inflammation of the bladder.*

230. *Conium, Digitalis, and Calomel.*

℞. Pulveris Digitalis, Calomelanos, āā gr. 5; Extracti Conii, gr. 60. Make a mass, divide into fifteen pills, and order one to be taken three times a day. *As a sedative and diuretic in dropsy from cardiac disease.*

XI. EMETICS AND EXPECTORANTS.

231. *Depressing Emetics.*

℞. Antimonii Tartarati, gr. 1—2; Vini Ipecacuanhæ, fl. drs. ij; Aquæ, ad fl. oz. iss. Make a draught, to be taken immediately. *Its action should be aided by the free administration of warm water.*

℞. Antimonii Tartarati, gr. 1; Pulveris Ipecacuanhæ, gr. 20. Make a powder. To be taken in honey or cream, or as a bolus in wafer paper.

℞. Vini Ipecacuanhæ, fl. oz. j. To be taken when it is desired to induce vomiting. *For children one fluid drachm, in sweetened water, will generally suffice.*

232. *Stimulant Emetics.*

℞. Pulveris Sinapis, oz. ½; Aquæ, fl. oz. iij. Make a draught. To be taken immediately.

℞. Cupri Sulphatis, gr. 10; Aquæ, fl. oz. iij. Make an emetic draught.

℞. Zinci Sulphatis, gr. 20—40; Aquæ, fl. oz. iij. Mix.

233. *A Warm Emetic.*

℞. Pulveris Ipecacuanhæ, Ammoniæ Carbonatis, āā gr. 20; Tincturæ Lavandulæ Compositæ, fl. drm. j; Aquæ, fl. oz. ij. Make a draught. After taking it, a tumblerful of infusion of Chamomile Flowers (Infusum Anthemidis) should be drunk. *Suggested by a formula of* Dr. Druitt's. *In the incipient stages of fever, erysipelas &c.*

234. *Tartar Emetic Mixture.*

℞. Antimonii Tartarati, gr. 2; Syrupi Rhœados, Aquæ, āā fl. drs. iv. Mix and label,—"One teaspoonful every two hours, in a wineglassful of water, until there is nausea."—*As a depressant to the circulating and nervous systems.*

235. *Ammonia and Senega.*

℞. Ammoniæ Carbonatis, gr. 30; Spiritûs Ætheris, fl. drs. iij; Tincturæ Scillæ, fl. drs. iss; Tincturæ Camphoræ cum Opio, fl. drs. ij—iv; Tincturæ

Lavandulæ Compositæ, fl. drs. vj; Infusi Senegæ, ad fl. oz. viij. Mix. Two tablespoonfuls every four hours. *In the chronic bronchitis of old people.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. iv; Spiritûs Chloroformi, fl. drs. iij; Tincturæ Aconiti, min. xxx; Tincturæ Senegæ, fl. drs. vj; Aquæ Camphoræ, ad fl. oz. viij. Mix. One-sixth part every six hours. *A valuable stimulating expectorant in some cases of bronchitis.*

℞. Ammoniæ Carbonatis, gr. 12; Vini Ipecacuanhæ, min. xl; Tincturæ Senegæ, fl. drs. ij; Syrupi Rhœados, fl. drs. iij; Aquæ, ad fl. oz. iij. Mix. One dessertspoonful every two or three hours. *An excellent stimulating expectorant for young children recovering from croup. In hooping-cough, where the bronchi are loaded with mucus.*

236. *Squills, Nitric Acid, and Bark.*

℞. Syrupi Scillæ, fl. drs. vj; Acidi Nitrici Diluti, fl. drm. j; Tincturæ Hyoscyami, fl. drs. iij; Spiritûs Chloroformi, fl. drs. vj; Infusi Cinchonæ Flavæ, ad fl. oz. viij. Mix. One-sixth part twice or thrice daily. *In chronic catarrh with debility and restlessness.*

237. *Ammoniacum and Opium.*

℞. Tincturæ Scillæ, fl. drs. iss; Extracti Opii Liquidi, min. xx—xxx; Syrupi Tolutani, fl. drs. vj; Misturæ Ammoniaci, ad fl. oz. vj. Mix. One-sixth part three times a day. *A sedative and expectorant mixture in the chronic bronchitis of elderly people.*

238. *Sarsaparilla and Squills.*

℞. Extracti Sarsæ Liquidi, Syrupi Scillæ, āā fl. drs. xij. Mix, and label,—"One teaspoonful in a teacupful of barley water frequently during the day."—*An agreeable demulcent and expectorant in inflammation of the mucous membranes about the throat and air-passages.*

239. *Squills, Ammonia, and Morphia.*

℞. Syrupi Scillæ, fl. drs. vj; Spiritûs Ammoniæ Aromatici, fl. drs. iij; Liquoris Morphiæ Hydrochloratis, fl. drm. j (equivalent to half a grain of the salt); Infusi Serpentariæ, ad fl. oz. viij. Mix. One-sixth part twice or thrice a day. *In chronic catarrh.*

240. *Antimony and Ether.*

℞. Vini Antimoniale, fl. drs. iss; Spiritûs Ætheris, fl. drs. iij; Mucilaginis Tragacanthæ, fl. oz. iij; Aquæ, ad fl. oz. vj. Mix. One-sixth part every four hours. *The quantity of antimonial wine should be doubled when it is desirable to induce nausea.*

241. *Ipecacuan and Indian Sarsaparilla.*

℞. Vini Ipecacuanhæ, fl. drs. ij; Syrupi Hemidesmi, fl. drs. iij; Mucilaginis Acaciæ, fl. oz. j; Aquæ, ad fl. oz. ij. Mix. One teaspoonful every two hours. *For children threatened with an attack of croup or bronchitis.*

℞. Vini Ipecacuanhæ, fl. drs. ij; Syrupi Hemidesmi, fl. oz. j; Infusi Lini, ad fl. oz. viij. Mix. One-sixth part every four hours. *An emollient and expectorant in catarrh.*

242. *Indian Tobacco and Hemlock.*

℞. Tincturæ Lobeliæ Æthereæ, fl. drs. iij; Syrupi Papaveris, fl. drs. vj; Tincturæ Conii Fructus, fl. drs. ij—iv; Misturæ Amygdalæ, ad fl. oz. vj. Mix. One-sixth part every four hours. *In spasmodic cough, and some forms of asthma.*

243. *Squills and Hemlock.*

℞. Pilulæ Scillæ Compositæ, Extracti Conii, āā gr. 30. Make a mass, divide into twelve pills, and order two to be taken every night at bed-time. *In chronic catarrh when opium is objectionable.*

244. *Nitrous Ether, Ipecacuanha, and Hemlock.*

℞. Vini Ipecacuanhæ, fl. drs. iss; Spiritûs Ætheris Nitrosi, fl. drs. vj; Succi Conii, fl. drs. iij; Infusi Senegæ, ad fl. oz. viij. Mix. One-sixth part every six hours. *In chronic bronchitis, when an expectorant and sedative is required.*

245. *Dulcamara and Stramonium.*

℞. Tincturæ Scillæ, fl. drs. ij; Tincturæ Stramonii, fl. drs. iss; Infusi Dulcamaræ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In chronic catarrh and rheumatism, especially where the secretions of the skin and kidneys are deficient.*

246. *Benzoic Acid and Squills.*

℞. Acidi Benzoici, gr. 40; Syrupi Scillæ, Syrupi Rhœados, āā fl. oz. iss. Make a linctus, of which one small teaspoonful is to be ordered to be taken every four hours. *In chronic bronchial affections with suppressed action of the liver.* See F. 49.

247. *Opium and Squills.*

℞. Syrupi Scillæ, Syrupi Papaveris, Syrupi Limonis, Mucilaginis Tragacanthæ, āā fl. drs. iv. Make a linctus, of which a teaspoonful is to be directed to be taken frequently.

℞. Syrupi Scillæ, fl. drs. xij; Tincturæ Camphoræ cum Opio, fl. drs. iv. Make a linctus, and order one teaspoonful to be taken when the cough is troublesome.

XII. GARGLES AND INHALATIONS.

248. *Hydrochloric Acid Gargle &c.*

℞. Acidi Hydrochlorici Diluti, fl. drs. iij; Mellis Depurati, oz. 1; Infusi Rosæ Acidi, ad fl. oz. viij. Mix. *In tonsillitis after the acute stage, and in relaxed sore-throat.*

249. *Zinc and Rhatany Gargle.*

℞. Zinci Sulphatis, gr. 20; Syrupi Mori, fl. drs. iv; Glycerini, fl. oz. j; Infusi Krameriæ, ad fl. oz. viij. Mix. *For relaxation of the uvula and fauces.*

250. *Borax Gargles.*

℞. Boracis, gr. 160; Tincturæ Myrrhæ, fl. oz. j; Aquæ, ad fl. oz. viij. Mix. *Useful in aphthæ and ulcerations about the fauces.*

℞. Boracis, gr. 120; Glycerini, fl. oz. j. Mix. To be painted over the gums, tongue &c. with a camel's-hair pencil. *In aphthæ. It is preferable to*

the officinal BORAX HONEY, *as the sugar of the latter favours the formation of fungi.*

℞. Boracis, gr. 60; Glycerini, fl. drs. xij; Aquæ Rosæ, ad fl. oz. iv. Mix. *To be painted over the tongue in some forms of ulceration, fissure &c.*

℞. Boracis, gr. 180; Syrupi Scillæ, fl. oz. j; Aquæ, ad fl. oz. viij. Mix. *As a gargle in chronic inflammation of the fauces.*

251. *Tannin Gargle.*

℞. Acidi Tannici, gr. 20; Spiritûs Vini Gallici, fl. oz. j; Aquæ Camphoræ, ad fl. oz. viij. Mix.

252. *Alum and Myrrh Gargle.*

℞. Aluminis Exsiccati, gr. 80; Tincturæ Myrrhæ, fl. oz. j; Aquæ, ad fl. oz. viij. Mix. *In mercurial salivation, ulceration about the mouth and fauces &c.*

253. *Opium and Belladonna Gargle.*

℞. Tincturæ Opii, fl. drs. ij; Tincturæ Belladonnæ, fl. drm. j; Aquæ Camphoræ, ad fl. oz. viij. Mix. *To be used frequently in acute tonsillitis.*

254. *Chlorinated Soda Gargle.*

℞. Liquoris Sodæ Chloratæ, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. *In ulcerated sore throats, profuse salivation &c. It may also be used as a lotion to foul gangrenous ulcers, as well as to the seat of irritation in prurigo.*

255. *Creasote Gargles.*

℞. Creasoti, min. xx; Mucilaginis Tragacanthæ, fl. oz. iij; Aquæ, ad fl. oz. viij. Mix.

℞. Creasoti, min. xx; Tincturæ Lavandulæ Compositæ, Tincturæ Myrrhæ, āā fl. drs. iv; Syrupi Limonis, fl. drs. xij; Aquæ, ad fl. oz. viij. Mix. *In chronic inflammation of the throat, dysphonia clericorum &c.*

256. *Corrosive Sublimate Gargles.*

℞. Hydrargyri Corrosivi Sublimati, gr. 2; Acidi Nitrici Diluti, min. xxx; Tincturæ Myrrhæ, fl. oz. j; Aquæ, ad fl. oz. viij. Mix.

℞. Hydrargyri Corrosivi Sublimati, gr. 3; Glycerini, fl. oz. j; Extracti Conii, gr. 60; Aquæ, ad fl. oz. viij. Mix. *Useful in syphilitic affections of the tongue and throat. The patient must use one tablespoonful at a time, and should be cautioned against swallowing it.*

257. *Capsicum and Alum Gargle.*

℞. Aluminis Exsiccati, gr. 100; Tincturæ Capsici, fl. drs. ij; Syrupi Mori, fl. oz. j; Aquæ Rosæ, ad fl. oz. viij. Mix. *In hoarseness, sore throat &c. with relaxation of the uvula or tonsils.*

258. *Sulphite of Soda.*

℞. Sodæ Sulphitis, gr. 60; Aquæ Destillatæ, fl. oz. j. Mix. To be frequently applied by means of a camel's-hair pencil to the mucous membrane of the mouth and fauces. *In cases of aphthæ.*

259. *Iodine Inhalation.*

℞. Tincturæ Iodi, min. xxx; Aquæ Calidæ, fl. oz. iv. Mix. The vapour is to be cautiously inhaled. *In some cases of laryngeal phthisis.*

In *severe coryza* great relief is given by holding a small bottle of Tincture of Iodine under the nose. The warmth of the hand suffices to vaporise the iodine.

260. *Turpentine and Creasote Inhalations.*

℞. Olei Terebinthinæ, fl. oz. j; Aquæ Calidæ, ad fl. oz. vj. Mix. *In chronic bronchitis with excessive secretion. To be used with a common inhaler.*

℞. Creasoti, min. xxx; Aquæ Bullientis, fl. oz. viij. Mix. *In ozæna and other affections of the nostrils, pharynx &c.*

261. *Hydrocyanic Acid Inhalations.*

℞. Acidi Hydrocyanici Diluti, min. xx; Tincturæ Hyoscyami, Tincturæ Lupuli, āā fl. oz. j; Aquæ Calidæ, ad fl. oz. viij. Mix. *In phthisis, ulceration of the larynx &c. Can be used with any common inhaler.*

℞. Acidi Hydrocyanici Diluti, min. xv; Spiritûs Chloroformi, fl. drs. i'j—vj; Aquæ Bullientis, fl. oz. viij. Mix. *In laryngitis, œdema of the glottis &c.*

262. *Atomised Fluids for Inhalation.*

The following drugs may be used in the form of spray. The dose mentioned is to be added to one ounce of water:—

Alumen Exsiccatum	grs.	5	to 30.	Liquor Calcis Saccharatus	min.	xv	to xc.
Acidum Tannicum	grs.	3	to 12.	Oleum Terebinthinæ	min.	j	to v.
Argenti Nitras	grs.	1	to 5.	Potassæ Chloras	grs.	5	to 10.
Aqua Laurocerasi	min.	v	to xx.	Potassii Bromidum	grs.	2	to 10.
Borax	grs.	5	to 20.	Potasii Iodidum	grs.	2	to 10.
Extractum Belladonnæ	gr.	¼	to 1.	Sodii Chloridum	grs.	5	to 40.
Extractum Conii	grs.	5	to 10.	Tinctura Ferri Perchloridi	min.	v	to xxx.
Extractum Cannabis Indicæ	gr.	¼	to 1.	Tinctura Iodi	min.	j	to xv.
Extractum Opii	gr.	¼	to 2.	Zinci Sulphas	grs.	3	to 15.
Hydrargyrum Corrosivum Sublimatum	gr.	1/16	to ¼.				

The best instruments for dispersing the finest spray are,—Dr. Siegle's, in which steam is applied as the dispersing medium: a modification of this apparatus, made by Krohne, 241 Whitechapel Road: Dr. Andrew Clarke's double handball spray-producer: Mr. Maunder's single handball.

Atomised medicated fluids may be advantageously used in affections of the lining membrane of the nose, mouth, and fauces. In croup, and diphtheria. Syphilitic affections of palate and throat. Laryngitis. Œdema of the glottis. Tubercular or syphilitic ulcerations of larynx. Hoarseness and loss of voice. Hooping-cough. Bronchitis. Phthisis. During their application the patient should make deep and long inspirations and expirations. Except in acute cases, one application daily will suffice.

XIII. LOTIONS, LINIMENTS, COLLYRIA, AND OINTMENTS.

263. *Hydrocyanic Acid Lotions.*

℞. Acidi Hydrocyanici Diluti, fl. drs. iij; Plumbi Acetatis, gr. 60; Spiritûs Rectificati, fl. oz. j; Aquæ Sambuci, ad fl. oz. viij. Mix. *In impetigo, prurigo &c.*

℞. Liquoris Potassæ, fl. drs. ij ; Acidi Hydrocyanici Diluti, fl. drs. iss ; Glycerini, fl. oz. j ; Aquæ Rosæ, ad fl. oz. viij. *In some cases of pityriasis.*

℞. Liquoris Ammoniæ Acetatis, fl. oz. j ; Acidi Hydrocyanici Diluti, fl. drs. iss ; Infusi Tabaci (made with sixty grains of Bird's-eye tobacco), ad fl. oz. viij. Mix. To be sponged twice or thrice daily over the seat of irritation. *In pruritus about the anus, vulva &c.*

℞. Hydrargyri Corrosivi Sublimati, gr. 3 ; Acidi Hydrocyanici Diluti, fl. drs. iss ; Misturæ Amygdalæ, ad fl. oz. viij. Mix. *To check the irritation in prurigo and other skin diseases.*

264. *Astringent Lotions.*

℞. Glycerini, fl. oz. j ; Liquoris Plumbi Subacetatis, fl. drs. ij ; Spiritûs Rectificati, fl. drs. iv ; Aquæ Rosæ, ad fl. oz. viij. Mix. *In eczema, ecthyma, pityriasis &c.*

℞. Zinci Sulphatis, gr. 16 ; Spiritûs Rosmarini, Tincturæ Lavandulæ Compositæ, āā fl. drs. ij ; Aquæ, ad fl. oz. viij. Mix. *The common "Red Lotion" of Hospitals. Very useful for strumous and other ulcers.*

℞. Potassæ Chloratis, gr. 80 ; Aquæ, fl. oz. viij. Mix. *For many ill-conditioned ulcers.*

℞. Acidi Citrici, gr. 120 ; Aquæ, fl. oz. viij. Mix. *For cancerous sores. Also as a gargle in cancer of the tongue or tonsil.* It relieves pain, and encourages cicatrization.

265. *Anodyne Lotions.*

℞. Tincturæ Aconiti, fl. oz. iss ; Aquæ, ad fl. oz. iv. Mix. *In acute superficial pain, hyperæsthesia of skin, pruritus &c.*

℞. Tabaci Communis, gr. 120 ; Aquæ Bullientis, Oj. Infuse for an hour, and strain. *To be freely used in pruritus of the vulva or anus.*

℞. Tincturæ Belladonna, fl. oz. j ; Spiritûs Chloroformi, fl. oz. ij ; Aquæ Destillatæ, ad fl. oz. viij. Mix.

℞. Extracti Belladonnæ, gr. 120 ; Glycerini, fl. oz. j. Mix. *To be painted over the seat of pain in neuralgic diseases.*

266. *Alkaline and Anodyne Lotions.*

℞. Liquoris Morphiæ Hydrochloratis, fl. oz. iss ; Liquoris Potassæ, fl. drs. ij ; Glycerini, fl. oz. j ; Aquæ Laurocerasi, fl. oz. j ; Aquæ Sambuci, ad fl. oz. viij. Mix. *For the relief of pruriginous affections.*

℞. Potassæ Sulphuratæ, gr. 60 ; Liquoris Potassæ, min. xxx ; Tincturæ Aconiti, fl. drs. iv ; Aquæ Destillatæ, ad fl. oz. viij. Mix.

267. *Acid and Anodyne Lotion.*

℞. Acidi Acetici, fl. drs. iss ; Morphiæ Acetatis, gr. 10 ; Vini Colchici, fl. oz. iij. Mix. *To be applied over the inflamed joint in gout, on a piece of lint covered with oiled silk.*

268. *Borax or Soda, and Glycerine Lotions.*

℞. Boracis, gr. 60—120 ; Glycerini, fl. oz. j ; Aquæ Sambuci, ad fl. oz. viij. Mix. *An excellent local palliative in many of the squamous diseases of the skin.*

℞. Boracis, gr. 200 ; Morphiæ Hydrochloratis, gr. 10 ; Glycerini, fl. oz. j ; Aquæ Rosæ, ad fl. oz. viij. Mix. *In obstinate pruritus of the vulva. The parts to be sponged twice or thrice in the twenty-four hours with this*

lotion, previously washing them with glycerine (or honey) soap and warm water.

℞. Sodæ Carbonatis, gr. 120; Aquæ Sambuci, fl. oz. vij; Glycerini, fl. oz. j. Mix. *To allay the itching attendant on many skin diseases, healing ulcers &c.*

269. *Iodine Lotions.*

℞. Tincturæ Iodi, fl. oz. j; Glycerini, fl. drs. xij; Aquæ Destillatæ, ad fl. oz. viij. Mix. *For indolent and scrofulous ulcers &c.*

℞. Linimenti Iodi, fl. drs. iv; Tincturæ Aconiti, fl. oz. j; Aquæ Destillatæ, ad fl. oz. viij. Mix. *In some cases of chronic peritonitis; chronic pleurisy with effusion; chronic effusions into joints &c.* See F. 81.

270. *Creasote, or Carbolic Acid, and Glycerine.*

℞. Creasoti, min. xxxv; Glycerini, fl. drs. xij; Aquæ, ad fl. oz. viij. Mix, for a lotion. *In pityriasis &c.*

℞. Acidi Carbolici, fl. drm. j; Glycerini, fl. oz. j; Aquæ, ad fl. oz. viij. Mix, for a lotion. *In pruriginous affections.*

271. *Corrosive Sublimate Lotion.*

℞. Hydrargyri Corrosivi Sublimati, gr. 4—6; Aquæ Destillatæ, fl. oz. iij. Mix. *Useful in tinea favosa, and other parasitic skin diseases.*

272. *Sulphurous Acid Lotion.*

℞. Acidi Sulphurosi, fl. oz. j; Aquæ Destillatæ, fl. oz. vij. Mix. *In skin diseases dependent on a parasitic plant.*

273. *Cold Lotions.*

℞. Liquoris Ammoniæ Acetatis, fl. oz. j; Spiritûs Rectificati, fl. oz. ij; Aquæ Rosæ, ad fl. oz. viij. Mix. *As an evaporating lotion in inflammation of the membranes of the brain. To be applied after the scalp has been shaved.*

℞. Ammoniæ Hydrochloratis, oz. ½; Spiritûs Rectificati, fl. oz. j; Acidi Acetici Diluti, fl. drs. xij; Aquæ, ad fl. oz. viij. Mix.

274. *Absorbent Lotions.*

℞. Zinci Oxidi, gr. 160; Aquæ Rosæ, ad fl. oz. viij. Mix. *Useful in impetigo, eczema &c.*

℞. Zinci Oxidi, gr. 160; Mucilaginis Tragacanthæ, Aquæ Destillatæ, āā fl. oz. iv. Mix.

275. *Solutions of Arnica.*

℞. Tincturæ Arnicæ, fl. drs. j—vj; Aquæ Destillatæ, ad fl. oz. viij. Mix. *As a lotion in sprains, contusions, and burns.*

℞. Tincturæ Arnicæ, fl. drs. ij; Tincturæ Belladonnæ, fl. oz. j; Linimenti Saponis, ad fl. oz. viij. Mix, for an embrocation.

276. *Mercurial Liniments.*

℞. Linimenti Hydrargyri, fl. oz. ij; Linimenti Belladonnæ, Linimenti Opii, āā fl. oz. j. Mix. *In syphilitic tubercles, nodes &c.*

℞. Hydrargyri Corrosivi Sublimati, gr. 8; Aquæ Destillatæ, fl. oz. viij. Mix. *To be used every night in cases of chloasma.*

℞. Unguenti Hydrargyri, oz. 1; Glycerini, fl. oz. j; Iodi, gr. 120; Olei Olivæ, fl. oz. ij. Mix. *To be gently rubbed over syphilitic nodes.*

277. *Rubefacient Liniment.*

℞. Pulveris Capsici, gr. 30; Olei Macis, min. xxx; Linimenti Terebinthinæ, fl. oz. iij; Linimenti Camphoræ Compositi, ad fl. oz. viij. Mix. *As a liniment to the chest in some cases of bronchitis.*

278. *Stimulating Liniment.*

℞. Linimenti Saponis, Linimenti Opii, Linimenti Camphoræ Compositi, āā fl. oz. j; Tincturæ Arnicæ, fl. drs. ij. Mix. *To be applied round the throat, on a strip of flannel, in subacute tonsillitis, common sore throat &c.*

279. *Camphor Liniment and Opium &c.*

℞. Linimenti Camphoræ Compositi, fl. oz. ij; Tincturæ Opii, Tincturæ Belladonnæ, āā fl. drs. iv. Mix. *To be rubbed over the scrobiculus cordis to check obstinate nausea and vomiting, pain &c.*

280. *Iodide of Potassium Liniment.*

℞. Potassii Iodidi, *vel* Ammonii Iodidi, gr. 40; Aquæ, fl. drs. iv. Mix, and add—Glycerini, fl. oz. j. *Useful in some glandular enlargements, as well as for dispersing the chalk-stones of gout.*

281. *Belladonna and Aconite Liniment.*

℞. Linimenti Belladonnæ, Linimenti Aconiti, āā fl. drs. iv; Linimenti Camphoræ Compositi, fl. oz. iij. Mix. The seat of pain to be rubbed with this liniment for ten minutes at bed-time. *In pleurodynia, chronic rheumatism, and painful nervous affections.*

For the same class of cases a good liniment may be made with one part of belladonna liniment, one of opium liniment, and four of turpentine liniment.

℞. Linimenti Belladonnæ, fl. drs. iij; Glycerini, fl. drs. v; Linimenti Saponis, fl. oz. ij. Mix. The spine to be rubbed with this liniment night and morning for five minutes. *In hooping-cough.* May be used for a child five years old.

282. *Chloroform, Belladonna, and Aconite Liniment.*

℞. Linimenti Chloroformi, Linimenti Aconiti, Linimenti Belladonnæ, Linimenti Opii, āā fl. oz. ss; Linimenti Saponis, fl. oz. j. Mix. To be rubbed into the painful part night and morning. *In neuralgic and rheumatic pains of great severity.*

283. *Cod Liver Oil Embrocations.*

℞. Olei Morrhuæ, fl. oz. iiiss; Spiritûs Ammoniæ Aromatici, fl. oz. j; Tincturæ Opii, fl. drs. iv; Olei Lavandulæ, min. xxx. Mix. One-half to be well rubbed over the chest and abdomen, night and morning. *In phthisis and other cases where the use of cod liver oil is indicated, but where the stomach will not bear it.*

℞. Olei Morrhuæ, fl. oz. j; Olei Cajuputi, fl. drm. j. Mix. To be rubbed over the chest at bed-time. *The cajuput oil well disguises the smell of this embrocation.*

284. *Caoutchouc Solution.*

Take some thin pieces of Indian rubber, or of pure gutta-percha, and dissolve them in chloroform. A good protective solution. *To be painted over superficial excoriations, threatened bed-sores &c.*

285. *Collodium Paints.*

℞. Collodii, fl. oz. j; Olei Palmæ, min. xx; Anchusæ Radicis, sufficient to give colour.—A good artificial cuticle, which when spread on the skin will not crack, may also be formed by mixing two parts of glycerine with one hundred of collodium.—A similar preparation can be made with one part of collodium to two of castor oil.—*Either preparation may be used as a varnish in various cutaneous affections, excoriations, or superficial burns.*

286. *Glycerine and Lime Water.*

℞. Glycerini, fl. oz. j; Pulveris Tragacanthæ Compositi, gr. 120; Mellis Depurati, gr. 120; Liquoris Calcis Saccharati, fl. oz. iss; Misturæ Amygdalæ, ad fl. oz. viij. Mix. *A good bland embrocation in cases of herpes, superficial burns, chapped hands, excoriations &c.*

The officinal Linimentum Calcis, consisting of equal parts of olive oil and lime water, is also useful in some of the above-mentioned cases.

287. *Ammonia and Cantharides &c.*

℞. Spiritûs Ammoniæ Aromatici, Spiritûs Rosmarini, Glycerini, āā fl. oz. j; Tincturæ Cantharidis, fl. drs. iij—vj; Aquæ Rosæ, ad fl. oz. viij. Mix. *To be gently brushed into the scalp night and morning, when the hair is falling off after fever or any severe illness.*

A more elegant embrocation may be made by adding two fluid drachms of Tincture of Cantharides to two ounces of Eau de Cologne.

℞. Balsami Tolutani, gr. 120; Olei Rosmarini, min. xx; Tincturæ Cantharidis, fl. drs. iv; Olei Ricini, fl. oz. j; Adipis Præparati, oz. 1. Mix. *A valuable pomade in cases of baldness following ringworm, pityriasis, or tinea decalvans. It should be brushed into the scalp night and morning.*

288. *Sulphate of Atropia.*

℞. Atropiæ Sulphatis, gr. 1; Aquæ Destillatæ, fl. drs. iv. Mix. *Dilatation of the pupil is effected most speedily and is longest maintained by a solution of this kind. A full drop must be placed in the eye by means of a camel's-hair pencil: the effect will be produced in from fifteen to twenty minutes, and will sometimes continue for seven or eight days.*

The officinal Liquor Atropiæ contains half a grain of the alkaloid in each drachm. But the spirit which is used to keep it in solution causes considerable pain to the eyes when it is applied.

Discs of gelatine impregnated with atropine are prepared according to the instructions of Mr. Ernest Hart and Mr. Streatfeild. These discs dissolve and act very efficiently when placed in contact with the moist conjunctiva. A piece, one-fifth of an inch square, contains as much of the Sulphate of Atropine as a drop of the solution of two grains to the ounce of water.

289. *Alum Coagulum.*

Take the whites of two eggs and shake them with fragments of alum to form a coagulum. *Useful when painted under the eyelid to produce contraction in trichiasis, entropion &c.*

290. *Sedative Collyria.*

℞. Extracti Belladonnæ, gr. 3—10; *vel* Extracti Opii, gr. 2—5; *vel* Morphiæ Hydrochloratis, gr. 1—2; *vel* Acidi Hydrocyanici Diluti, min. x; *vel* Tincturæ Aconiti, min. v—xxx; Aquæ Destillatæ, fl. oz. j. Mix.

291. *Astringent Collyria.*

℞. Zinci Sulphatis, gr. 2—4; *vel* Aluminis Exsiccati, gr. 1—4; *vel* Tincturæ Arnicæ, min. v—xxx; *vel* Cupri Sulphatis, gr. 1—4; *vel* Argenti Nitratis, gr. 1—4; *vel* Liquoris Plumbi Subacetatis, min. x; *vel* Cadmii Sulphatis, gr. 1—3; Aquæ Destillatæ, fl. oz. j. Mix.

℞. Zinci Oxidi, gr. 60; Aquæ Rosæ, fl. oz. viij. Mix. For an eye-water, to be used night and morning.

292. *Iodide of Potassium Collyrium.*

℞. Potassii Iodidi, gr. 6—8; Aquæ Destillatæ, fl. oz. j. Mix. *To remove stains of nitrate of silver from the conjunctiva.*

293. *Iodide of Lead Ointments.*

℞. Plumbi Iodidi, gr. 60; Unguenti Atropiæ, gr. 60—120 (each ounce contains eight grains of the alkaloid); Unguenti Simplicis, ad oz. 1. Mix. *In some malignant ulcerations.*

℞. Plumbi Iodidi, gr. 90; Unguenti Cetacei, oz. 1; Linimenti Belladonnæ, *vel* Linimenti Aconiti, fl. drm. j. Mix. *For malignant and painful strumous ulcers.*

294. *Sulphate of Zinc Ointment.*

℞. Zinci Sulphatis Exsiccatæ, gr. 120; Unguenti Simplicis, oz. 1. Mix. *Very useful in some forms of lupus, rodent ulcer, &c. The officinal* ALUMEN EXSICCATUM *may be employed in the same cases.*

295. *Tar and Citrine Ointment.*

℞. Unguentum Picis Liquidæ (Phar. Lond. 1851), oz. 1½; Unguenti Cetacei, oz. 1; Unguenti Hydrargyri Nitratis, oz. ½. Mix. *In lepra, psoriasis, chronic eczema, &c.*

296. *Aconitine Ointments.*

℞. Unguenti Aconitiæ, oz. ¼ (=to grs. 2 of the alkaloid); Unguenti Calomelanos, oz. 1—2. Mix. *In some forms of neuralgia.*

℞. Aconitiæ, gr. 2; Spiritûs Rectificati, guttæ vj. Mix thoroughly, and add—Adipis Præparati, gr. 60. *Recommended by* DR. TURNBULL *for severe neuralgia. A small portion is to be painted over the nerve, but it must not be used where there is the slightest abrasion.*

297. *Belladonna and Opium.*

℞. Extracti Belladonnæ, Extracti Opii, āā gr. 90; Glycerini, fl. drs. iv; Extracti Papaveris, oz. 1½. Mix. *To be painted over the seat of inflammation in pleurisy, peritonitis, gastric disease &c. A fomentation flannel, or hot linseed poultice, or wet compress is to be applied; being separated from the extracts by a sheet of tissue paper.*

298. *Mercurial and Opiate Ointments.*

℞. Unguenti Hydrargyri, gr. 10; Pulveris Opii, gr. 2. Mix. *Recommended by* DR. WATSON *in cases of severe nocturnal pain around the orbit. It is to be rubbed into the temple just before the pain may be expected.*

℞. Hydrargyri Corrosivi Sublimati, gr. 5; Pulveris Opii, gr. 10; Unguenti Simplicis, oz. 1. Mix. *In chloasma &c.*

299. *Calomel and Belladonna Ointment.*

℞. Linimenti Belladonnæ, fl. drs. ij ; Unguenti Calomelanos, oz. 1. Mix. *In syphilitic tubercular diseases.*

300. *Ammoniated Mercury and Sulphur.*

℞. Unguenti Hydrargyri Ammoniati, gr. 120 ; Unguenti Sulphuris, gr. 360. Mix. *A good antiparasitic ointment.*

301. *Creasote and Red Oxide of Mercury.*

℞. Creasoti, min. x ; Unguenti Hydrargyri Oxidi Rubri, gr. 120 ; Unguenti Simplicis, gr. 360. Mix. *In parasitic diseases of the skin, the ulcerations of rupia &c.*

302. *Red Iodide of Mercury Ointment.*

℞. Hydrargyri Iodidi Rubri, gr. 8 ; Unguenti Simplicis, oz. 1. Mix. *In chronic glandular tumours, a small portion rubbed in every night proves very useful. The officinal ointment is double the strength of the foregoing, and hence it causes pain and blistering.*

303. *Croton Oil and Lard.*

℞. Olei Crotonis, min. xv ; Adipis Præparati, oz. ½. Mix. One-fourth part to be rubbed into the skin every eight hours, until an abundant pustular eruption is produced. *Useful as a counter-irritant.*

304. *Veratria Ointment.*

℞. Unguenti Veratriæ, Unguenti Potassii Iodidi, āā oz. 1. Mix. *In chronic rheumatism, chronic gout &c.*

305. *Diluted Citrine Ointment.*

℞. Unguenti Hydrargyri Nitratis, gr. 40—120 ; Unguenti Cetacei, gr. 240. Mix. *As a stimulant and alterative in chronic skin diseases. May be applied to the edges of the eyelids in ophthalmia to prevent their adhering at night.*

306. *Compound Spermaceti Ointments.*

℞. Acidi Hydrocyanici Diluti, fl. drm. j ; Unguenti Atropiæ, gr. 120 ; Unguenti Cetacei, oz. 1. Mix. *In cutaneous diseases attended with pain or itching.*

℞. Balsami Peruviani, gr. 60 ; Unguenti Cetacei, oz. 1. Mix. *In slight excoriations.*

℞. Balsami Peruviani, gr. 60 ; Unguenti Cetacei, oz. 2 ; Alkannæ Tinctoriæ Radicis, gr. 60 ; Olei Rosæ (Otto of Roses), min. x. Mix. *Useful as a lip-salve, and as an application to chapped hands and sore nipples.*

307. *Belladonna and Iodide of Potassium.*

℞. Linimenti Belladonnæ, fl. drs. ij ; Unguenti Potassii Iodidi, oz. 1. Make an ointment. The Liniment of Aconite may be substituted for the Belladonna, if desired. *In painful chronic tumours, neuralgia &c.*

308. *Iodine and Cod Liver Oil Ointment.*

℞. Unguenti Iodi Compositi, Olei Morrhuæ, āā fl. drs. iv. Mix. *Useful when rubbed upon the throat in bronchocele ; as well as when applied to*

strumous glands, unsuppurating buboes, and the tumid bellies of children with mesenteric disease.

309. *Bole Armeniack and Lead.*

℞. Boli Armenæ Rubræ, Plumbi Oxidi Semivitrei, āā gr. 30; Camphoræ, gr. 5; Ceræ Flavæ, gr. 180; Adipis Præparati, gr. 360. Mix. To be spread on thick linen. *Several German physicians speak of this as an efficacious application for preventing and curing bed-sores.*

310. *Iodide of Sulphur Ointments.*

℞. Sulphuris Iodidi, gr. 20; Unguenti Simplicis, oz. 1. Mix. *In acne, applied thrice daily.*

℞. Sulphuris Iodidi, gr. 12; Sulphuris Præcipitati, gr. 20; Olei Amygdalæ Amaræ, min. v; Adipis Præparati, oz. 1. Mix.

311. *Creasote and Sulphur Ointment.*

℞. Unguenti Creasoti, Unguenti Sulphuris, āā oz. ½. Mix. *In pityriasis, and some other chronic cutaneous affections.*

312. *Iodide of Cadmium Ointment.*

℞. Cadmii Iodidi, gr. 60; Adipis Præparati, oz. 1; Linimenti Aconiti fl. drs. iss. Mix. *Superior to iodide of potassium ointment for rubbing into tender and enlarged strumous glands, nodes &c.*

XIV. NARCOTICS AND SEDATIVES.

313. *Anæsthetics.*

The chief anæsthetics which have hitherto been used in the practice of medicine are chloroform, sulphuric ether, and amylene. As the employment of one or other of these agents is often indicated in neuralgia, delirium, convulsions, the paroxysmal dyspnœa of infantile laryngismus and diphtheria and croup, as well as in spasmodic diseases generally, a few words on their mode of administration may not be out of place.

The principal advantages of inhalation are these:—That by means of the immense surface offered by the air-cells of the lungs for absorption, a deeper and more rapid effect is induced than it would be safe or easy to effect by other means. At the same time, the digestive functions are less interfered with than when narcotics are given in the ordinary way.

In every form of inhalation the anæsthetic should be freely diluted with common air, and no attempt made to produce rapid narcotism; while the breathing ought to be allowed to go on quietly and naturally. The patient should be tranquil, fearless, and usually in the recumbent posture. And the administrator of the narcotic agent, while watching the respiration and the countenance, had better also keep his finger on the pulse. For if the breathing becomes stertorous, or if there is evidence that the circulation is getting weak and faltering, the inhalation must be suspended.

Chloroform was introduced into practice by Sir James Y. Simpson, of Edinburgh, in November 1847. The vapour of this hot, sweet, heavy liquid may be inhaled by individuals of all ages, from infants under one year to persons as old as ninety; and in almost all states of the system. The exceptional cases which preclude its employment, at all events in medical practice, are instances of marked blood poisoning, of far-advanced

cardiac or pulmonary or cerebral disease, and perhaps of habitual drunkenness. It is best administered from an apparatus such as the late Dr. Snow recommended; though Sir James Simpson always uses a simple napkin folded into the shape of a funnel. A crumpled handkerchief in a tumbler forms a convenient inhaler. But in whatever way it is exhibited care must be taken that it does not come into contact with the lips and nose; since it produces painful excoriations. Chloroform should also be given slowly and cautiously; and it acts best before breakfast, or when the patient's stomach is empty. If administered immediately after food, sickness is sure to result. According to Dr. Snow, about four cubic inches of vapour, or rather more than five grains of chloroform to each hundred cubic inches of air, is the proportion most suitable for causing insensibility to surgical operations; while in medical and obstetric cases it should only be used in a more diluted form.—When an overdose has been given, the patient should be made to inhale ether, as it counteracts the depressing action which chloroform exerts on the heart. Or artificial respiration, performed in the manner to be presently described, may be resorted to; the success of which will depend upon the extent to which the heart and the muscles of respiration have been paralysed by the chloroform. Dr. Snow gave this anæsthetic in 4000 or more cases, with the loss of only one person while inhaling it; and amongst these were patients with heart disease, phthisis, and several who had suffered from apoplexy. It has been computed that during the Crimean war chloroform was administered 40,000 times, death resulting in only one case.

Æther (first used as an anæsthetic in September 1846, by Dr. W. T. G. Morton, of Boston, Massachusetts,) is thought to be a safer agent for inducing narcotism than chloroform; but although it is so, still it must be given with the same caution. About one fluid ounce is usually inhaled by an adult in becoming insensible; though not more than half this quantity is absorbed, the remainder being thrown back from the lungs, mouth, &c. An excellent anæsthetic for obstetric practice may be made with equal parts of ether and chloroform.

Amylene is made by distilling amylic alcohol (obtained from crude fusel oil, or oil of potato spirit) with chloride of zinc. In the present state of our knowledge, it is not advisable to resort to this agent. Dr. Snow seems to have administered it in 238 cases, and to have had two deaths from it.

In apparent death from any anæsthetic, *artificial respiration*, after the plan recommended by Dr. Silvester, ought to be tried. The body is to be laid on its back with the head and shoulders slightly raised. The mouth and nostrils are to be cleansed from mucus; and the tongue should be drawn firmly forwards so as to keep the tip well protruded at the side of the mouth. Then the operator is to compress, for two or three seconds, the front and sides of the chest by the patient's own arms. Thus the medicated vapour will be partly expelled from the lungs; while upon the pressure being suddenly removed, the elastic walls of the chest will expand, and give the primary impetus to respiration. To assist expansion to the utmost the ribs should be drawn upwards by means of the pectoral muscles. This is effected by the operator grasping the arms just above the elbows, and drawing them upwards until they nearly meet above the head. Then they must be lowered, and replaced at the sides; at the same time making moderate pressure with them, for a couple of seconds, against the chest-walls. This process is to be repeated fifteen times in the minute.

In some instances, galvanism of the phrenic nerve, diaphragm, and intercostal muscles would be useful in keeping up the movements of respi-

ration; one pole of the battery being applied over the outer edge of the sterno-mastoid muscle just above the clavicle, while the other is pressed deeply into the seventh intercostal space. The diaphragm must be made to contract and relax alternately, by interrupting the currents at equal intervals.

While attempts are thus being made to oxygenate the blood, an assistant is to rub the limbs from the extremities towards the heart. If no respiratory efforts supervene, the face and chest are to be dashed with cold water, or with hot and cold water alternately. When success follows this plan, the temperature of the body must be maintained by friction, hot blankets, the warm bath &c.

314. *Morphia, Atropine, Aconitine &c. for Hypodermic Injection.*

The solution of *Acetate of Morphia* as used for injection under the skin is generally made by mixing ten grains of this salt with one drachm of distilled water. Sufficient acetic acid is then added to dissolve the morphia; the fluid being afterwards neutralized by the addition of Liquor Potassæ until a cloud appears. Finally, one or two drops of acetic acid are used to gently acidulate the mixture.

Each six minims of this solution will contain one grain of acetate of morphia. For first injections, not more than one minim and a half should be used; as it is certain that this narcotic acts more powerfully when thus employed, than when taken into the stomach. In diseases which are continuously painful the ease given by an injection will last for about twelve hours. To relieve the suffering of advanced cancer &c. the injection may be advantageously given, night and morning, for many months.

The subcutaneous injection of *Atropine* is sometimes useful in cases of intestinal obstruction, asthma, tetanus, neuralgia, chorea in the adult &c. Great caution is necessary: not more than two minims of the officinal Liquor Atropiæ (= to gr. 1-50) should be employed at first.

Chloroform may be used in same manner. The injection of ten or fifteen minims often effects a cure for the time in pleurodynia, neuralgia, sciatica &c. It has the disadvantage of sometimes producing an irritable ulcer, which may be slow in healing.

A solution of *Aconitine* may be made thus:—Aconitiæ, gr. 1; Spiritûs Rectificati, min. x; Aquæ Destillatæ, ad fl. drs. ij. Mix. For first injections not more than two minims should be employed: the dose may afterwards be safely increased to four minims (gr. 1-30). It is better, though not absolutely necessary, to make the injection at the seat of pain.

315. *Morphia Draughts &c.*

℞. Liquoris Morphiæ Hydrochloratis, min. xxx (= to gr. ¼ of the salt); Syrupi Limonis, fl. drm. j; Aquæ Camphoræ, fl. oz. j. Mix. To be taken at bed-time. *In insomnia with pain.*

℞. Liquoris Morphiæ Hydrochloratis, min. xv—xxx; Spiritûs Chloroformi, fl. drm. j (= to min. iij of chloroform); Spiritûs Ætheris, min. xxx; Tincturæ Belladonnæ, min. xx; Tincturæ Cardamomi Compositæ, fl. drm. j; Aquæ, ad fl. oz. iss. Mix. To be taken every two hours (the patient being watched) until the pain ceases. *Useful in facilitating the passage of gall-stones.*

℞. Liquoris Morphiæ Hydrochloratis, min. xl; Acidi Hydrocyanici Diluti, min. xx; Syrupi Scillæ, fl. drs. vj; Mucilaginis Acaciæ, ad fl. oz. vj.

Mix. One tablespoonful every three or four hours. *In many irritable coughs.*

316. *Chloroform and Opium.*

℞. Chloroformi, min. x—xv; Extracti Opii Liquidi, min. xv—xxx; Syrupi Rhœados, fl. drm. j; Mucilaginis Tragacanthæ, fl. oz. j. Mix, for a night draught. *In severe colic and other spasmodic disorders.*

317. *Morphia, Chloroform, and Indian Hemp.*

℞. Liquoris Morphiæ Hydrochloratis, min. xx; Chloroformi, min. x; Tincturæ Cannabis Indicæ, min. xx; Pulveris Tragacanthæ Compositi, gr. 30; Spiritûs Ætheris, min. xl; Acidi Hydrocyanici Diluti, min. iv; Aquæ, ad fl. oz. iss. Mix, for a night draught. *In many chronic diseases attended with pain or restlessness.*

The medicine called CHLORODYNE probably consists essentially of chloroform, Indian hemp, morphia, and hydrocyanic acid. In the *Canada Lancet* (15 October 1864) DR. W. E. BOWMAN gives the following formula for its preparation:—Take of Chloroform, half a fluid ounce; Sulphuric Ether, ninety minims; Oil of Peppermint, eight drops; Resin of Indian Hemp, six grains; Capsicum, two grains. Mix, shake occasionally, and allow it to stand for a few days. Take of Muriate of Morphia, sixteen grains, dissolved by the aid of heat in two fluid drachms of water; to which when cold, add of Scheele's Hydrocyanic Acid, sixty-five minims; Perchloric Acid, one fluid drachm; Treacle, two fluid ounces. Add this gradually to the first mixture, and then make the whole measure four fluid ounces by the addition of treacle or water.—Each dose of thirty minims contains of chloroform min. iv, ether min. iss, extract of hemp, gr. 1-10th, hydrochlorate of morphia, gr. ¼, and of Scheele's acid min. j.

318. *Brandy and Egg Mixture, with Opium.*

℞. Misturæ Spiritûs Vini Gallici (See F. 17) fl. oz. j; Extracti Opii Liquidi, min. v—x; Spiritûs Chloroformi, min. xl. Mix. To be taken every four hours. *In exhaustion from pain.*

319. *Tolu and Camphorated Opium.*

℞. Tincturæ Tolutanæ, fl. drs. ij; Syrupi Tolutani, fl. oz. j; Tincturæ Camphoræ cum Opio, fl. drs. iv (= to gr. 1 of opium); Mucilaginis Tragacanthæ, ad fl. oz. viij. Mix. Two tablespoonfuls three times a day. *For old people, where the mucous secretion from the bronchi is excessive.*

320. *Cimicifuga Racemosa, or Black Snake-root.*

℞. Tincturæ Actææ Racemosæ, min. xxx—fl. drs. ij; Aquæ, ad fl. oz. j. Mix, for a draught. To be administered every three or four hours until nausea ensues or the pulse becomes lowered. *This drug possesses narcotic and eliminative properties, and is useful in chronic rheumatism, lumbago, chorea, obscure nervous pains, and in backache from uterine disturbance.*

321. *American Hellebore.*

℞. Tincturæ Veratri Viridis (a saturated solution) min. v—x; Aquæ, fl. oz. j. Mix. This draught may be given every three hours, adding one drop of tincture to each dose, until the pulse becomes sufficiently lowered or nausea is produced. The latter is readily counteracted by small doses of morphia. *It is a valuable arterial sedative; and is particularly used by*

American physicians in inflammations of the lungs, pleura, or peritoneum, and in acute rheumatism.

322. *Lobelia and Ether.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. ij ; Tincturæ Lobeliæ Ætheræ, fl. drs. iij—vj ; Tincturæ Aconiti, min. xxx ; Aquæ Camphoræ, ad fl. oz. viij. Mix. One-sixth part twice or thrice daily. *As a sedative in some cases of asthma.*

323. *Stramonium and Henbane.*

℞. Extracti Stramonii, gr. 3 ; Extracti Hyoscyami, gr. 20 ; Extracti Lupuli, gr. 40. Mix, and divide into twelve pills. One to be taken every four hours until relief is obtained. *In chronic disorders attended with suffering, in diseases of the nervous system accompanied with pain and restlessness, and in the dyspnœa of phthisis and emphysema.*

℞. Tincturæ Stramonii, fl. drs. j—ij ; Tincturæ Hyoscyami, fl. drs. ij ; Tincturæ Cantharidis, fl. drm. j ; Spiritûs Chloroformi, fl. drs. iij ; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In some cases of asthma.*

324. *Opium and Ipecacuanha.*

℞. Extracti Opii, Pulveris Ipecacuanhæ, āā gr. 1 ; Potassæ Nitratis, gr. 8 ; Glycerini, sufficient to make a mass. Divide into two pills, and order them to be taken at bed-time. *A good narcotic and diaphoretic. It is preferable to the officinal* POWDER OF IPECACUAN AND OPIUM, *as the nitrate of potash acts better than the sulphate.*

℞. Vini Ipecacuanhæ, fl. drs. iiss ; Extracti Opii Liquidi, min. xxx ; Syrupi Tolutani, fl. drs. v ; Mucilaginis Tragacanthæ, fl. oz. j. Mix. One teaspoonful every two or three hours. *In chronic cough.*

325. *Henbane, Camphor, and Hop.*

℞. Extracti Hyoscyami, Camphoræ, Lupulinæ, āā gr. 20. Mix, divide into twelve pills, and order two to be taken every night at bed-time. *An excellent sedative for hysterical and hypochondriacal patients suffering from sleeplessness.*

℞. Spiritûs Camphoræ, min. xxx ; Tincturæ Hyoscyami, Tincturæ Lupuli, āā fl. drm. j ; Mucilaginis Acaciæ, fl. oz. j. Mix, for a draught to be taken at bed-time.

326. *Belladonna. Atropia.*

℞. Extracti Belladonnæ, gr. 5 ; Zinci Sulphatis, gr. 30 ; Extracti Gentianæ, gr. 90. Make a mass, divide into twenty pills, and order one to be taken three times a day. *In cases where a sedative and tonic action is to be produced. Especially useful in some diseases attended with irritability of the urinary organs. Also in many spasmodic coughs.* See F. 92.

℞. Extracti Belladonnæ, gr. ½ ; Extracti Quassiæ, gr. 2. Mix into a pill, to be taken night and morning. *In epilepsy. Requires to be given for a long period.*

℞. Camphoræ, gr, 5 ; Extracti Belladonnæ, gr. ⅓ ; Extracti Conii, gr. 4 ; Spiritûs Rectificati, sufficient to make two pills. To be taken every night at bed-time. *In spermatorrhœa ; convulsions ; as well as in certain spasmodic affections of the air-passages.*

℞. Liquoris Atropiæ, fl. drs. ij. One drop (= gr. 1-120) in a tablespoonful of brandy and water, night and morning. *In epilepsy.* The dose

to be increased by one drop every second or third week. A preparation of zinc may be given at the same time, if desired.

327. *Camphor and Blue Pill.*

℞. Camphoræ, gr. 5; Extracti Opii, gr. 1; Pilulæ Hydrargyri, gr. 4. Mix, divide into two pills, and order them to be taken at bed-time. *In restlessness with congestion of the liver and irritability of the sexual organs. Also in venereal sores with nocturnal emissions.*

328. *Codeia and Assafœtida.*

℞. Codeiæ, gr. ½; Pilulæ Assafœtidæ Compositæ, gr. 5. Mix into a pill, to be taken every night at bed-time. *Especially useful in attacks of spasmodic cough, dyspnœa &c.*

329. *Morphia and Assafœtida.*

℞. Morphiæ Hydrochloratis, gr. 2; Assafœtidæ, gr. 30; Camphoræ, gr. 20. Make a mass, divide into twelve pills, and order one to be taken at bed-time. *A good stimulant and antispasmodic.*

330. *Aconite and Guaiacum.*

℞. Tincturæ Aconiti, min. xx—xl; Spiritûs Ætheris, fl. drs. iv; Misturæ Guaiaci, ad fl. oz. viij. Mix. One-sixth part every six hours. *As an anodyne, stimulant, and alterative in chronic rheumatism, neuralgia &c.*

331. *Aconite and Mercury.*

℞. Extracti Aconiti, gr. 1—3; Pilulæ Calomelanos Compositæ, gr. 3. Make into a pill, and order it to be taken every night at bed-time. *In sleeplessness from a syphilitic taint.*

332. *Aconite and Opium.*

℞. Extracti Aconiti, Extracti Opii, āā gr. 8; Extracti Hyoscyami, gr. 16. Mix, and divide into eight pills. One to be taken every four, six, or eight hours. *In some acute inflammations,—as peritonitis, pleurisy, ovaritis &c.*

333. *Opium and Sugar of Milk.*

℞. Pulveris Ipecacuanhæ cum Opio, gr. 1; Sacchari Lactis, gr. 120. Mix, and divide into four powders. One to be taken every night, beaten up in a teaspoonful of cream. *A safe opiate for infants from two to six weeks old.*

℞. Tincturæ Opii, min. j; Sacchari Lactis, oz. ½; Mucilaginis Tragacanthæ, Aquæ Anethi, āā fl. drs. iv. Mix. One teaspoonful twice or thrice in the twenty-four hours. *In the painful diseases of early life.*

334. *Tincture of Digitalis.*

℞. Tincturæ Digitalis, fl. drm. j; Aquæ Anethi, fl. oz. viij. Mix. One-sixth part every four hours. *Recent experiments tend to prove that digitalis is a cardiac stimulant and tonic; and that it is therefore especially useful in diseases due to weakness of the muscular walls.*

℞. Tincturæ Digitalis, fl. drs. j—ij; Tincturæ Cardamomi Compositæ, fl. drs. vj; Acidi Hydrocyanici Diluti, min. xx; Aquæ Camphoræ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In some forms of cardiac disease, with irritability of the stomach.*

℞. Acidi Sulphurici Aromatici, fl. drs. ij ; Tincturæ Digitalis, fl. drm. j ; Extracti Opii Liquidi, min. xxx ; Infusi Chiratæ, ad fl. oz. viij. Mix. One-sixth part three times a day.

335. *Hemlock and Henbane &c.*

℞. Extracti Conii, Extracti Hyoscyami, Pilulæ Rhei Compositæ, āā gr. 3. Mix, and divide into two pills. To be taken at bed-time. *To relieve sleeplessness with constipation. In some forms of asthma.*

℞. Extracti Conii, Extracti Hyoscyami, Pilulæ Hydrargyri, āā gr. 3 ; Pulveris Ipecacuanhæ, gr. 1. Mix, and divide into two pills. To be taken at bed-time.

336. *Hemlock and Dover's Powder.*

℞. Extracti Conii, gr. 36 ; Pulveris Ipecacuanhæ cum Opio, gr. 24. Mix, and divide into twelve pills. One to be taken every three or four hours. *To relieve the pain arising from malignant disease.*

337. *Henbane and Indian Hemp.*

℞. Extracti Cannabis Indicæ, gr. $\frac{1}{4}$—1 ; Extracti Hyoscyami, gr. 4. Make into a pill. To be taken every twelve or twenty-four hours.

338. *Iodoform Pills and Suppositories.*

℞. Iodoformi, gr. 2—6 ; Extracti Conii, gr. 4. Mix. Divide into two pills, and order them to be taken at bed-time. *In painful diseases of the stomach. The Author has once or twice found a full dose of iodoform relieve a paroxysm of asthma.*

℞. Iodoformi, gr. 3—8 ; Butyri Cacao, gr. 20. Mix, for a suppository. *As a local anæsthetic in cancerous and other painful diseases of rectum.* The anodyne action of iodoform is uncertain.

339. *Opiate Enemata.*

℞. Tincturæ Opii, min. xx—xxx ; Vini Ipecacuanhæ, min. xxx ; Mucilaginis Amyli, fl. oz. ij. Mix. The bowel should be washed out with warm water before the administration of this enema. *In diarrhœa, tenesmus, strangury &c.*

℞. Extracti Opii Liquidi, min. xx—fl. drm. j ; Tincturæ Belladonnæ, min. xv—xxx ; Mucilaginis Amyli, fl. oz. ij. Mix. *In cancer of uterus, rectum &c.*

340. *Opiate Suppositories.*

℞. Pulveris Opii, gr. 1—2 ; Saponis Duri, gr. 10. Mix, for a suppository. *To allay pain or irritation about the pelvic viscera.*

℞. Extracti Opii, gr. 1—3 ; Extracti Belladonnæ, gr. $\frac{1}{2}$; Butyri Cacao, gr. 20. Mix into a suppository. *Especially useful in diseases of the bladder and rectum.*

341. *Lettuce Opium.*

℞. Lactucarii, gr. 8—10. To be divided into two pills, to be taken at bed-time. *A doubtful narcotic. Has been chiefly used as an anodyne in phthisis, or where opium cannot be borne.*

342. *Indian Hemp, Aconite, and Ether.*

℞. Tincturæ Cannabis Indicæ, min. xx ; Spiritûs Juniperi, min. xxx ; Spiritûs Ætheris, min. xlv ; Tincturæ Aconiti, min. x ; Mucilaginis

Acaciæ, ad fl. oz. iss. Mix, for a draught. To be taken at bed-time. *In neuralgic dysmenorrhœa &c.*

343. *Opium, or Morphia, and Henbane.*

℞. Extracti Opii, gr. 1—3, *vel* Morphiæ Hydrochloratis, gr. ¼—1 Extracti Hyoscyami, gr. 3. Make into a pill, to be taken at bed-time. *For the relief of severe pain, and to afford sleep in lingering diseases.*

344. *Opium and Belladonna.*

℞. Extracti Opii, gr. 1; Extracti Belladonnæ, gr. ¼; Extracti Conii, gr. 3. Make into a pill, to be taken every three or four hours. *In intestinal obstruction. And in other cases where it is necessary to relieve severe pain without inducing constipation.*

The belladonna may be omitted where only the influence of the opium is required.

345. *Opium and Capsicum.*

℞. Extracti Opii, gr. 1—2; Pulveris Capsici, gr. 2; Extracti Hyoscyami, gr. 4. Make into two pills, to be taken every night at bed-time. *In those diseases where opium is needed, but where it is not well-borne, owing to its producing headache, sickness &c. The stimulating effect of the capsicum will often ward off these unpleasant results.*

346. *Morphia and Squill Linctus.*

℞. Syrupi Scillæ, Syrupi Rhœados, āā fl. oz. j; Liquoris Morphiæ Hydrochloratis, fl. drm. j. Mix, and label,—"A small teaspoonful to be taken frequently, if the cough is troublesome."

347. *Compound Linctus.*

℞. Spiritûs Chloroformi, fl. drs. iv; Vini Ipecacuanhæ, fl. drs. ij; Liquoris Morphiæ Hydrochloratis, fl. drm. j; Acidi Hydrocyanici Diluti, min. xv; Syrupi Mori, ad fl. oz. iij. Mix, and label,—"One teaspoonful every two or three hours, until the cough is relieved."

XV. REFRIGERANTS AND SALINES.

348. *Saline Draughts.*

℞. Sodæ Bicarbonatis, gr. 20; Aquæ Laurocerasi, min. x; Syrupi Limonis, fl. drm. j; Aquæ, ad fl. oz. iss. Mix. An effervescing draught is to be made by the addition of a tablespoonful of lemon juice, or of eighteen grains of citric acid. To be taken every four or six hours. *In fever with nausea.*

℞. Spiritûs Ætheris Nitrosi, fl. drs. iv; Liquoris Ammoniæ Acetatis, fl. drs. iij—vj; Vini Colchici, fl. drm. j; Aquæ Camphoræ, ad fl. oz. viij. Mix. Two tablespoonfuls every four hours.

℞. Syrupi Scillæ, fl. drs. vj; Spiritûs Ætheris Nitrosi, Tincturæ Hyoscyami, āā fl. drs. iij; Infusi Rosæ Acidi, ad fl. oz. viij. Mix. One-sixth part every six hours. *In influenza, catarrh &c.*

℞. Potassæ Nitratis, gr. 40, *vel* Potassæ Citratis, gr. 100; Vini Antimoniale, fl. drm. j; Liquoris Ammoniæ Acetatis, fl. drs. iv; Aquæ Camphoræ, ad fl. oz. viij. Mix. One-sixth part every four hours.

349. *Saline with Excess of Ammonia.*

℞. Liquoris Ammoniæ Acetatis, fl. drs. vj ; Spiritûs Ammoniæ Aromatici, fl. drs. iij ; Syrupi Limonis, fl. drs. vj ; Aquæ, ad fl. oz. viij. Mix. One-sixth part every four hours. *In the early stages of fever, tonsillitis &c.*

350. *Dr. Stevens' Saline Mixture.*

℞. Sodii Chloridi, gr. 20 ; Potassæ Chloratis, gr. 7 ; Sodæ Carbonatis, gr. 30 ; Aquæ, fl. oz. iss. Mix. To be taken every half hour. *In malignant cholera.*

351. *Colchicum and Magnesia.*

℞. Vini Colchici, fl. drs. iss ; Magnesiæ Carbonatis, gr. 120 ; Spiritûs Ammoniæ Aromatici, fl. drs. iij ; Tincturæ Hyoscyami, fl. drs. ij ; Aquæ Camphoræ, ad fl. oz. viij. Mix. One-sixth part night and morning. *In slight cases of gout &c.*

352. *Colchicum and Chlorate of Potash.*

℞. Vini Colchici, fl. drs. ij ; Potassæ Chloratis, gr. 120 ; Liquoris Ammoniæ Acetatis, fl. drs. vj ; Aquæ Camphoræ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In gout with heat and dryness of the skin.*

353. *Borax and Nitric Ether.*

℞. Boracis, gr. 80 ; Spiritus Ætheris Nitrosi, fl. drs. iij ; Syrupi Papaveris, fl. drs. vj ; Infusi Lini, ad fl. oz. viij. Mix. One sixth part every six hours.

354. *Ammonia, Chlorinated Soda, and Serpentary.*

℞. Ammoniæ Carbonatis, gr. 30 ; Liquoris Sodæ Chloratæ, fl. drm. j ; Infusi Serpentariæ, fl. oz. viij. Mix. One-sixth part every six hours. *As a diaphoretic and stimulant in the low stage of continued fever.* See F. 368.

355. *Bicarbonate of Potash Drink.*

℞. Potassæ Bicarbonatis, oz. ¼—½ ; Syrupi Limonis, fl. oz. j ; Aquæ, ad Oij. Mix, for the day's drink. *Very useful in the uric acid diathesis, in acute rheumatism &c. A drink called "Constitution-water" owes its efficacy to the bicarbonate of potash it contains.*

356. *Cream of Tartar Drink.*

℞. Potassæ Tartratis Acidæ, oz. 1 ; Olei Limonis, min. xv ; Sacchari Albi, oz. 2 ; Aquæ Bullientis, Oij. Mix. To be used, when cold, as a common drink. *In simple fever, with constipation and great thirst.*

357. *Hydrochloric Acid Drink.*

℞. Acidi Hydrochlorici Diluti, fl. drs. ij—iij ; Mellis Depurati, oz. 1 ; Decocti Hordei, Oij. Mix, for the daily drink. *In typhus &c.*

358. *Hydrochloric Acid and Chlorate of Potash Drink.*

℞. Acidi Hydrochlorici Diluti, fl. drs. ij ; Potassæ Chloratis, gr. 180 ; Syrupi Zingiberis, fl. oz. j ; Decocti Hordei, Oij. Mix. *A valuable drink in some cases of fever.*

359. *Phosphoric Acid Drink.*

℞. Acidi Phosphorici Diluti, fl. drs. iij ; Glycerini, fl. oz. j ; Decocti Hordei, Oij. Mix. *An efficacious drink for assuaging thirst in some*

diseases attended with nervous exhaustion. It was recommended by DR. PARIS *and* SIR THOMAS WATSON *as useful in diabetes; but according to* GRIESINGER *it positively increases the quantity of sugar excreted.*

360. *Chlorate of Potash Drinks.*

℞. Potassæ Chloratis, gr. 60; Syrupi Hemidesmi, fl. oz. j; Aquæ, Oj. Mix. *In the eruptive fevers, some inflammations &c.*

℞. Potassæ Chloratis, oz. 1; Potassæ Bicarbonatis, oz. 2—4. Mix, and divide into eight powders. One to be dissolved in a pint of barley water for the day's drink. *In acute rheumatism.*

XVI. STIMULANTS.

361. *Ammonia and Bitters.*

℞. Ammoniæ Carbonatis, gr. 30; Spiritûs Myristicæ, fl. drs. ij; Tincturæ Cardamomi Compositæ, fl. drs. vj; Infusi Caryophylli, ad fl. oz. viij. Mix. One-sixth part every four or six hours. *In debility with nausea and flatulence. Also in erysipelas, tonsillitis, scarlet fever &c.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. iij; Tincturæ Lupuli, fl. drs. vj; Tincturæ Gentianæ Compositæ, fl. oz. j; Infusi Sennæ, ad fl. oz. viij. Mix. One-sixth part twice or thrice daily. *In phosphuria with constipation.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. iij; Aquæ Laurocerasi, fl. drm. j; Sodæ Bicarbonatis, gr. 60; Tincturæ Calumbæ, fl. drs. vj; Aquæ Anethi, ad fl. oz. viij. Mix. One-sixth part two or three times a day. *To relieve nausea, or vomiting, with heartburn.*

362. *Ammonia in Effervescence.*

℞. Ammoniæ Carbonatis, gr. 120; Acidi Hydrocyanici Diluti, min. xx; Tincturæ Cardamomi Compositæ, fl. drs. vj; Infusi Aurantii, ad fl. oz. viij. Mix. One-sixth part to be made into an effervescing draught with one tablespoonful of fresh lemon juice, or with eighteen grains of citric acid. To be taken twice or thrice daily. *In irritability of the stomach, with depression.*

℞. Spiritus Ammoniæ Aromatici, fl. drs. iv; Potassæ Bicarbonatis, gr. 120; Spiritus Chloroformi, fl. drs. iij; Tincturæ Hyoscyami, fl. drs. iij; Infusi Cascarillæ, ad fl. oz. viij. Mix. One-sixth part every four hours, made into an effervescing draught with one tablespoonful of lemon juice. *In irritable stomach with undue acidity of the secretions.*

363. *Ammonia, Valerian, and Rhubarb.*

℞. Tincturæ Valerianæ Ammoniatæ, fl. drs. iij; Tincturæ Rhei, fl. drs. vj; Tincturæ Lavandulæ Compositæ, fl. oz. j; Aquæ Pimentæ, fl. oz. viij. Mix. One-sixth part when oppressed with languor or faintness. *In hypochondriasis and hysteria.*

364. *Ammonia and Ether.*

℞. Ammoniæ Carbonatis, gr. 30; Spiritûs Ætheris, fl. drs. iij; Infusi Caryophylli, ad fl. oz. viij. Mix. One-sixth part three times a day. *In debility with flatulence.*

365. *Hydrochloric Acid and Ether.*

℞. Acidi Hydrochlorici Diluti, fl. drm. j; Spiritûs Ætheris, fl. drs. iij; Syrupi Aurantii, fl. drs. vj; Infusi Aurantii, ad fl. oz. viij. Mix. One-sixth part every six hours. *In continued fever, and in cases where the respired air is ammoniacal.*

366. *Cajuput Oil and Cloves.*

℞. Olei Cajuputi, min. v; Pulveris Tragacanthæ Compositi, gr. 60; Aquæ Destillatæ, fl. drs. ij. Beat thoroughly together, and add—Infusi Caryophylli, fl. drs. x. Mix. To be taken occasionally. *In hysteria, flatulent colic, and many spasmodic diseases.*

℞. Olei Cajuputi, min. iv; Sacchari Lactis, gr. 120. Beat up thoroughly, and add—Decocti Aloes Compositi, fl. oz. iss. Mix. To be taken occasionally, early in the morning. *As a stimulant and laxative, where there is a tendency to flatulence and a loaded rectum.*

367. *Ether and Brandy.*

℞. Spiritûs Ætheris, fl. drs. iij; Spiritûs Vini Gallici, fl. drs. xij; Infusi Cinchonæ Flavæ, ad fl. oz. viij. Mix. One-sixth part every four or six hours. *At the commencement of convalescence from many acute diseases.*

℞. Spiritûs Chloroformi, fl. drs. vj; Misturæ Spiritûs Vini Gallici (F. 17), fl. oz. viij. Mix. One-sixth part every six hours. *In the low stages of fever with restlessness.*

368. *Solution of Chlorinated Soda.*

℞. Liquoris Sodæ Chloratæ, fl. drs. i—ij; Syrupi Tolutani, fl. oz. j; Tincturæ Serpentariæ, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. One-sixth part every six hours. *In low fever this mixture will clean the tongue, promote the action of the skin and kidneys, correct the offensive state of the evacuations, and rouse the patient.* See F. 354.

℞. Liquoris Sodæ Chloratæ, fl. drm. j; Tincturæ Cinchonæ Compositæ, fl. drs. vj; Spiritûs Vini Gallici, fl. drs. xij; Aquæ, ad fl. oz. viij. Mix. One-sixth part every three or four hours. *In low fever, with great prostration.*

369. *Sumbul and Hop.*

℞. Tincturæ Sumbulis, fl. drs. vj; Infusi Lupuli, ad fl. oz. viij. Mix. One-sixth part three times a day. *In some cases of hysteria, epilepsy, threatened delirium tremens &c. where a stimulant and antispasmodic is needed.* See F. 95.

370. *Quinine, Rhubarb, and Hop.*

℞. Tincturæ Quiniæ Compositæ, Tincturæ Rhei, Tincturæ Lupuli, āā fl. drs. iv. Mix. One teaspoonful in a wineglassful of water twice a day. *In dyspepsia from weakness of the digestive organs, and constipation.* See F. 385.

XVII. TONICS.

371. *Bark and Ammonia.*

℞. Ammoniæ Carbonatis, gr. 30; Tincturæ Lavandulæ Compositæ, fl. oz. j; Infusi Cinchonæ Flavæ, ad fl. oz. viij. Mix. One-sixth part every six hours.

℞. Ammoniæ Carbonatis, gr. 30; Tincturæ Aconiti, min. xl; Tincturæ Cinchonæ Compositæ, fl. drs. vj; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. One-sixth part three times a day.

℞. Ammoniæ Carbonatis, gr. 30; Extracti Opii Liquidi, min. xxx; Spiritûs Ætheris, fl. drs. iij; Decocti Cinchonæ Flavæ, ad fl. oz. viij. Mix. One-sixth part every three or four hours. *In cases where it is feared that a deposition of fibrin has taken place in the heart or one of the large vessels.*

℞. Spiritûs Ammoniæ Aromatici, Spiritûs Chloroformi, āā, fl. drs. vij; Liquoris Morphiæ Hydrochloratis, fl. drs. ij; Extracti Cinchonæ Flavæ Liquidi, fl. drs. iv; Tincturæ Cinchonæ Flavæ, ad fl. oz. iij. Mix. Direct. —"One teaspoonful in a wineglassful of Port wine three times a day." *In certain cases of phthisis this mixture is very useful, especially in conjunction with cod liver oil and a liberal diet.*

372. *Ammonia, Bark, and Rhubarb.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. iv; Extracti Cinchonæ Flavæ Liquidi, fl. drs. iss; Tincturæ Rhei, fl. drs. iv; Infusi Rhei, ad fl. oz. viij. Mix. One-sixth part twice or thrice daily. *In nervous depression &c. with constipation.*

373. *Bark and Liquor Potassæ.*

℞. Liquoris Potassæ, fl. drs. iij; Tincturæ Cinchonæ Compositæ, fl. drs. vj; Decocti Cinchonæ Flavæ, ad fl. oz. viij. Mix. One-sixth part twice or thrice daily. *In debility attended with the lithic acid diathesis.*

374. *Bark and Serpentary.*

℞. Tincturæ Cinchonæ Compositæ, fl. oz. j; Tincturæ Aconiti, min. xxx; Tincturæ Serpentariæ, *vel* Tincturæ Actææ Racemosæ, fl. drs. iij; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In some cases of chronic rheumatism, lumbago, and rheumatoid arthritis.*

375. *Bark and Hemlock.*

℞. Tincturæ Cinchonæ Compositæ, fl. drs. vj; Succi Conii, fl. drs. iv; Aquæ Pimentæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In chronic diseases attended with debility and pain.*

376. *Acid Mixtures and Bark.*

℞. Acidi Sulphurici Aromatici, fl. drs. ij; Syrupi Aurantii, fl. oz. j; Tincturæ Cinchonæ Compositæ, fl. drs. vj; Infusi Cinchonæ Flavæ, ad fl. oz. viij. Mix. One-sixth part twice or thrice daily, on an empty stomach. *Especially useful in depressing disorders accompanied with occasional attacks of hæmorrhage.*

℞. Acidi Phosphorici Diluti, fl. drs. iss; Tincturæ Aconiti, fl. drm. ss; Tincturæ Cinchonæ Compositæ, fl. oz. j; Infusi Aurantii, ad fl. oz. viij. Mix. One-sixth part three times a day. *In debility, with nervous irritability.*

℞. Acidi Nitrici Diluti, *vel* Acidi Phosphorici Diluti, fl. drs. iss; Tincturæ Nucis Vomicæ, fl. drm. j; Extracti Cinchonæ Flavæ Liquidi, fl. drs. ij; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. One-sixth part three times a day, two hours before each meal. *In general weakness, with nervous exhaustion.*

377. *Acid Mixtures with Calumbo &c.*

℞. Tincturæ Calumbæ, fl. drs. vj ; Acidi Sulphurici Aromatici, fl. drs. iss ; Syrupi Aurantii, fl. oz. j ; Infusi Aurantii, ad fl. oz. viij. Mix. One-sixth part three times a day, when the stomach is empty.

℞. Acidi Hydrochlorici Diluti, fl. drs. iss ; Acidi Hydrocyanici Diluti, min. xx ; Infusi Chiratæ, ad fl. oz. viij. Mix. One-sixth part three times a day, immediately before the meals. *As a stomachic, especially in the dyspepsia of gouty subjects.*

℞. Succi Limonis Recentis, fl. drs. xij ; Syrupi Limonis, fl. oz. j ; Infusi Chiratæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *Where there is debility with a threatening of rheumatic fever. In cancer of the stomach &c.*

378. *Nitro-Hydrochloric Acid Mixtures.*

℞. Acidi Nitro-Hydrochlorici Diluti, fl. drs. iss—ij ; Tincturæ Chiratæ, fl. drs. ij ; Tincturæ Aconiti, min. xxx ; Syrupi Aurantii, fl. oz. j ; Infusi Aurantii, ad fl. oz. viij. Mix. One-sixth part three times a day, an hour before each meal. *In oxaluria, dyspepsia, rheumatoid arthritis &c.*

℞. Acidi Nitro-Hydrochlorici Diluti, fl. drs. ij ; Acidi Hydrocyanici Diluti, min. xxv ; Tincturæ Arnicæ, fl. drm. j ; Tincturæ Gentianæ Compositæ, fl. oz. j ; Infusi Sennæ, ad fl. oz. viij. Mix. One-sixth part twice or thrice daily. *In dyspepsia, with sluggish action of the liver.* The efficacy of this mixture may often be increased by giving with each dose a pill containing one or two grains of sulphate of zinc and four of extract of gentian.

℞. Acidi Nitro-Hydrochlorici Diluti, fl. drs. ij ; Liquoris Strychniæ, min. xxx—fl. drm. j ; Spiritûs Chloroformi, fl. drs. vj ; Tincturæ Zingiberis, fl. drs. iij ; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In any form of functional paralysis after all the appreciable causes are remedied. Also in obstinate debility, hypochondriasis, diabetes insipidus, alkaline urine &c.*

℞. Acidi Nitro-Hydrochlorici Diluti, fl. drs. iss ; Tincturæ Belladonnæ, fl. drm. j ; Extracti Pareiræ Liquidi, fl. drm. j ; Decocti Pareiræ, ad fl. oz. viij. Mix. One-sixth part every six hours. *In incontinence of urine, when the reaction of the latter is alkaline.*

379. *Quinine Mixtures and Pills.*

℞. Quiniæ Sulphatis, gr. 12 ; Acidi Nitrici Diluti, *vel* Acidi Phosphorici Diluti, *vel* Acidi Sulphurici Aromatici, fl. drs. iss ; Tincturæ Lupuli, fl. drs. vj ; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *Amongst other purposes, this mixture may be used to check the night-sweats in phthisis.*

℞. Tincturæ Quiniæ Compositæ, fl. drs. xiv ; Tincturæ Aconiti, fl. drs. ij ; Glycerini, fl. oz. j. Mix. One teaspoonful in a wineglassful of water three times a day. *In neuralgia, nervous irritability, weakness &c.*

℞. Quiniæ Sulphatis, gr. 18 ; Extracti Lupuli, gr. 40. Make a mass, divide into twelve pills, and order one to be taken three times a day.

℞. Quiniæ Sulphatis, gr. 4 ; Acidi Phosphorici Diluti, min. xx ; Syrupi Aurantii, fl. drs. iv ; Aquæ, ad fl. oz. iv. Mix. One small tablespoonful three times a day. *In strumous ophthalmia and other cases of debility in children.*

℞. Quiniæ Sulphatis, gr. 64 ; Acidi Sulphurici Diluti, min. x ; Aquæ,

fl. drs. iv. Mix. From fifteen minims to half a drachm (gr. 4—8) may be carefully injected into the subcutaneous areolar tissue. *In intermittent fever &c.*

380. *Quinine and Steel.*

℞. Quiniæ Sulphatis, Ferri Sulphatis, āā gr. 12; Liquoris Strychniæ, min. xxx; Acidi Sulphurici Aromatici, fl. drs. iss; Infusi Quassiæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *The black stools, which are passed while any preparation of steel is being taken, are due to the combination of the metal with part of the sulphur of the food,—forming sulphuret of iron.*

℞. Quiniæ Sulphatis, gr. 9; Acidi Hydrochlorici Diluti, fl. drm. j; Tincturæ Arnicæ, min. xxx—fl. drm. j; Tincturæ Ferri Perchloridi, fl. drs. iss; Infusi Caryophylli, ad fl. oz. viij. Mix. One-sixth part three times a day. *In general debility, diphtheria, erysipelas &c.*

℞. Quiniæ Sulphatis, gr. 12; Tincturæ Ferrri Perchloridi, fl. drs. ij; Tincturæ Nucis Vomicæ, fl. drm. j; Tincturæ Lupuli, fl. drs. vj; Magnesiæ Sulphatis, oz. 1; Infusi Lupuli, ad fl. oz. viij. Mix. One-sixth part daily, three hours after breakfast. *In habitual constipation with debility.*

℞. Quiniæ Sulphatis, Ferri Sulphatis Exsiccatæ, āā gr. 20; Extracti Hyoscyami, gr. 30. Make a mass, divide into twelve pills, and order one to be taken twice a day. *In debility with irritability of the nervous system.*

℞. Quiniæ Sulphatis, gr. 12; Ferri Redacti, gr. 30; Extracti Aconiti, gr. 12; Glycerini, sufficient to form a mass. Divide into twelve pills, and order one to be taken an hour after dinner and supper. *In neuralgia, rheumatoid arthritis, painful chronic affections with debility &c.*

℞. Ferri et Quiniæ Citratis, gr. 30; Tincturæ Chiratæ, fl. drs. iss; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *An excellent tonic where there is exhaustion, with a weak and irritable stomach. If the strong bitter is objectionable, Tincture of Calumbo may be substituted for the Chiretta.*

381. *Quinine, Steel, and Arsenic.*

℞. Tincturæ Quiniæ Compositæ, fl. oz. j; Liquoris Arsenicalis, min. xviij; Ferri et Ammoniæ Citratis, gr. 30; Aquæ Aurantii, ad fl. oz. viij. Mix. One-sixth part three times a day, after meals. *In diseases of the skin &c. with impoverished blood.*

℞. Quiniæ Sulphatis, gr. 9; Acidi Phosphorici Diluti, Tincturæ Ferri Perchloridi, āā fl. drs. iss; Liquoris Arsenici Chloridi, (Phar. Lond. 1851), min. xxx—fl. drm. j; Syrupi Zingiberis, fl. drs. vj; Aquæ, *vel* Infusi Quassiæ, ad fl. oz. viij. Mix. One-sixth part directly after breakfast, dinner, and supper. *In many skin diseases, rheumatoid arthritis, carbuncular inflammation &c.* See F. 52, 399.

382. *Quinine and Iodide of Iron.*

℞. Tincturæ Quiniæ Compositæ, fl. oz. j; Syrupi Ferri Iodidi, fl. drs. iij—vj; Infusi Calumbæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In debility with a strumous taint, chronic rheumatism, goitre &c.*

383. *Quinine and Belladonna.*

℞. Quiniæ Sulphatis, gr. 24; Extracti Belladonnæ, gr. 4; Camphoræ, gr. 30; Confectionis Rosæ Gallicæ, sufficient to make a mass. Divide into

twelve pills, silver them, and order one to be taken twice or thrice daily. *In some painful diseases (neuralgia, cancer, dysmenorrhœa &c.) where a sedative and tonic are needed.* See F. 45.

384. *Quinine and Ipecacuanha.*

℞. Quiniæ Sulphatis, gr. 12; Pulveris Ipecacuanhæ, gr. 12—24; Extracti Gentianæ, gr. 24. Mix. Divide into twelve pills, and order one to be taken every day at dinner. *An excellent remedy in cases of slow digestion.* See F. 44.

385. *Quinine and Rhubarb.*

℞. Quiniæ Sulphatis, gr. 24; Pulveris Rhei, gr. 36; Glycerini sufficient to form a mass. Divide into twelve pills, and order one to be taken night and morning.

386. *Quinine and Ammonia.*

℞. Tincturæ Quiniæ Compositæ, fl. oz. j; Glycerini, fl. drs. vj; Spiritûs Ammoniæ Aromatici, Spiritûs Ætheris, āā fl. drs. iij; Extracti Opii Liquidi, min. xxx; Infusi Aurantii, *vel* Infusi Cinchonæ Flavæ, ad fl. oz. viij. Mix. One-sixth part every six hours. *In great exhaustion, with low muttering delirium and restlessness.*

387. *Quinine and Nux Vomica.*

℞. Quiniæ Sulphatis, gr. 18; Extracti Nucis Vomicæ, gr. 3—6; Extracti Gentianæ, gr. 35. Mix, and divide into twelve pills. One to be taken night and morning. *In debility with constipation.* See F. 175, 409.

388. *Substitutes for Quinine.*

℞. Beberiæ Sulphatis, gr. 30; Acidi Sulphurici Aromatici, min. xl; Syrupi Aurantii, fl. oz. j; Aquæ Aurantii, ad fl. oz. viij. Mix. One-sixth part three times a day. *In neuralgic affections assuming a periodic character; as well as in intermittent and remittent fevers. Beberia does not produce cerebral disturbance and headache like quinine. This sulphate of an alkaloid is said to be an ingredient of* WARBURG'S *Fever Drops.*

℞. Salicini, gr. 60; Extracti Sarsæ Liquidi, fl. drs. vj; Infusi Gentianæ Compositi, ad fl. oz. viij. Mix. One-sixth part three times a day. *During convalescence from acute disorders of the digestive organs. The antiperiodic properties of salicin render it useful in intermittent and some other fevers.*

℞. Salicini, gr. 120; Glycerini, fl. oz. j; Tincturæ Aurantii, ad fl. oz. iij. Mix. One teaspoonful in a wineglassful of water night and morning. *Where the stomach is easily nauseated and cannot digest quinine, this formula will be useful.*

389. *Cod Liver Oil.*

The oil most commonly used is of a pale straw colour, the dose varying from a teaspoonful to a large tablespoonful twice or thrice daily. It should be taken immediately after meals; floating it on milk, coffee, beef-tea, orange wine, brandy and water, cherry brandy &c. Chewing a piece of lemon peel or cinnamon, or a few cloves previously, will disguise the flavour. Sometimes it is preferred made into an emulsion; which may be done by beating it up with an equal proportion of lime water, or of milk, or with the yolk of an egg and some compound tincture of cardamoms. DR. DE JONGH'S oil is pure, and is prescribed by many practitioners.

Cod liver oil may be impregnated with various drugs,—such as any of the essential oils, morphia, arsenic, iodine, mercury, quinine, zinc, iron &c.

Too large a quantity of the solution must not be made at a time, as the oil soon becomes rancid. Combined with ozone (an allotropic modification of oxygen—αλλος, another, and τροπος, manner of existence,) it has been found to lessen considerably the frequency of the pulse in phthisis. The dose of ozonized oil, according to Dr. E. Symes Thompson, is from two to four drachms, two or three times a day. See F. 22, 32, 283, 390, and 418.

390. *Iodide of Iron and Cod Liver Oil.*

℞. Syrupi Ferri Iodidi, fl. drs. iv; Mucilaginis Tragacanthæ, fl. oz. j; Olei Morrhuæ, fl. oz. ivss. Mix. One tablespoonful twice or thrice daily. *In some forms of scrofula, phthisis, mild constitutional syphilis &c.*

℞. Potassii Iodidi, gr. 3—5; Glycerini, fl. drs. ij; Vini Ferri, fl. drs. iv; Olei Morrhuæ, fl. drs. vj. Mix, and make a draught to be taken twice a day. *In chronic rheumatism, tertiary syphilis, strumous skin diseases &c.*

391. *Steel and Cocoa-nut Oil.*

℞. Olei Cocos Nucis, fl. drs. ij; Spiritûs Ammoniæ Aromatici, min. xxx; Ferri et Ammoniæ Citratis, gr. 5; Aquæ Menthæ Piperitæ, ad fl. oz. j. Mix, and make a draught to be taken twice or thrice daily. *Deserving of trial when cod liver oil causes nausea.*

392. *Steel and Glycerine.*

℞. Tincturæ Ferri Perchloridi, fl. drs. iss—ij; Zinci Phosphatis, gr. 6; Tincturæ Calumbæ, fl. drs. vj; Glycerini, fl. oz. j; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In some cases it is better to omit the glycerine from this mixture; administering cod liver oil instead, after one or two of the chief meals of the day.*

℞. Tincturæ Ferri Perchloridi, fl. drs. ij—iv; Glycerini, fl. drs. iv; Aquæ, ad fl. oz. viij. Mix. One-eighth part every three or four hours. *In diphtheria, erysipelas &c.*

℞. Spiritûs Ammoniæ Aromatici, fl. drs. iv; Ferri et Ammoniæ Citratis, gr. 40; Infusi Quassiæ, fl. oz. viss; Glycerini, fl. oz. j. Mix. One-sixth part three times a day.

393. *Griffith's Mixture with Aloes.*

℞. Misturæ Ferri Compositæ, Decocti Aloes Compositi, āā fl. oz. iv; Zinci Sulphatis, gr. 12. Mix. One-sixth part twice a day. *In anæmia, hypochondriasis, general debility with constipation &c.*

394. *Steel and Pepsine.*

℞. Ferri Redacti, gr. 36—60; Pepsinæ Porci, gr. 36; Zinci Phosphatis, gr. 18; Glycerini, sufficient to make a mass. Divide into twenty-four pills, silver them, and order two to be taken every day at dinner. *In anæmia &c. with weakness of the digestive organs.*

℞. Ferri et Ammoniæ Citratis, gr. 20; Spiritûs Vini Gallici, fl. oz. j; Vini Pepsinæ, fl. drs. iv; Aquæ, ad fl. oz. vj. Mix. One-half to be taken every day at dinner. See F. 420.

395. *Steel and Hemlock.*

℞. Pilulæ Ferri Carbonatis, gr. 60; Extracti Conii, gr. 36—60. Mix, and divide into twenty-four pills. Two to be taken twice or thrice daily. *In incipient phthisis, and in many diseases attended with cough and debility.*

396. *Steel Electuaries.*

℞. Ferri Peroxidi, Mellis Depurati, āā oz. 2. Mix. One teaspoonful twice a day. *In chorea &c.*

℞. Ferri Carbonatis Saccharatæ, gr. 120—240; Oxymellis, fl. oz. iij. Mix. One teaspoonful twice or thrice daily after meals.

397. *Steel and Hydrochloric Acid.*

℞. Tincturæ Ferri Perchloridi, fl. drs. iss.; Acidi Hydrochlorici Diluti, fl. drs. ij; Tincturæ Hyoscyami, fl. drs. iij; Infusi Quassiæ, ad fl. oz. viij. Mix. One-sixth part three times a day.

398. *Steel and Gentian.*

℞. Ferri Sulphatis Granulatæ, Extracti Gentianæ, āā gr. 30. Mix, divide into twelve pills, and order one to be taken three times a day. *In chlorosis &c.*

399. *Steel and Arsenic.*

℞. Vini Ferri, fl. oz. iv; Liquoris Arsenicalis, min. xx; Syrupi Zingiberis, fl. oz. ij. Mix. One-sixth part, with three tablespoonfuls of water, three times a day, immediately after meals. *For cases of purpura. In reduced doses as a tonic and alterative in some of the skin diseases of children.* See F. 52, 381, 402.

℞. Syrupi Ferri Phosphatis, fl. oz. ij; Liquoris Sodæ Arseniatis, min. xxx. Mix. One teaspoonful in a wineglassful of water directly after dinner and supper. *In some forms of spleen disease &c.*

400. *Steel and Cantharides.*

℞. Tincturæ Cantharidis, fl. drs. iss; Glycerini, fl. oz. j; Misturæ Ferri Compositæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In debility of the generative organs, some forms of incontinence of urine &c.*

℞. Tincturæ Cantharidis, Tincturæ Ferri Perchloridi, āā fl. drm. j; Tincturæ Capsici, fl. drs. iss; Syrupi Hemidesmi, fl. oz. j; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day.

401. *Steel and Ammonia.*

℞. Ferri Tartarati, gr. 60; Spiritûs Ammoniæ Aromatici, fl. drs. iij; Infusi Quassiæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In chlorosis, leucorrhœa from relaxation of vaginal mucous membrane &c.*

℞. Ferri et Ammoniæ Citratis, gr. 40; Ammoniæ Carbonatis, gr. 30; Tincturæ Zingiberis, fl. drs. iij; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day.

402. *Steel and Chlorate of Potash.*

℞. Tincturæ Ferri Perchloridi, fl. drs. iss; Potassæ Chloratis, gr. 120; Liquoris Arsenicalis, min. xv; Aquæ, ad fl. oz. viij. Mix. One-sixth part three or four times a day, in a wineglassful of water. *In certain skin diseases, onychia &c. Also in anæmia dependent on a syphilitic taint, in erysipelas about the fauces, and in tonsillitis &c., omitting the solution of arsenic from the mixture.*

403. *Steel and Citrate of Potash.*

℞. Ferri et Ammoniæ Citratis, gr. 60; Spiritûs Ammoniæ Aromatici, fl. drs. iv; Potassæ Bicarbonatis, gr. 120; Infusi Calumbæ, ad. fl. oz. viij.

Mix. One-sixth part to be taken twice a day with one tablespoonful of lemon juice. *As a tonic where there is nausea and dyspepsia.*

404. *Steel and Aloes.*

℞. Ferri Carbonatis Saccharatæ, gr. 40; Infusi Anthemidis, fl. oz. viij. Mix. One-sixth part twice a day. The following draught is also to be taken every other morning before breakfast:—℞. Sodæ Phosphatis, gr. 120; Extracti Rhei, gr. 10; Decocti Aloes Compositi, fl. drs. iv; Aquæ Carui, fl. oz. j. Mix. *Useful for atonic gouty subjects.*

℞. Ferri Redacti, gr. 30; Pilulæ Aloes et Myrrhæ, gr. 24—40; Extracti Nucis Vomicæ, gr. 4. Make a mass, divide into twelve pills, and order one to be taken three times a day. *In anæmia with constipation.* See F. 393.

405. *Phosphate of Iron.*

℞. Ferri Phosphatis, gr. 40; Acidi Phosphorici Diluti, fl. drs. iss; Syrupi Aurantii Floris, fl. oz. j; Mucilaginis Tragacanthæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In scrofula, cancer, low nervous vigour &c.*

℞. Ferri Phosphatis, gr. 20; Pulveris Myrrhæ, gr. 15; Sacchari Albi, gr. 30. Mix, and divide into six powders. One to be taken night and morning. *In rickets, and other strumous diseases of children.*

A syrup of the Phosphates of Iron, Lime, Soda, and Potassa has been prepared by Mr. Parrish, of Philadelphia. It may be obtained from most London chemists; being known as "Chemical Food." The dose for a child ten years of age, is one teaspoonful in water after the two principal meals of the day. *This preparation is of great value in all forms of strumous disease, and general debility.*

406. *Steel and Manganese.*

℞. Ferri Phosphatis, gr. 120; Manganesii Phosphatis, gr. 90; Tincturæ Calumbæ, fl. oz. j; Syrupi Zingiberis, fl. oz. ij. Mix. One teaspoonful in a wineglassful of water three times a day. *In chlorosis, scrofula &c.*

407. *Acetate of Strychnia.*

℞. Strychniæ Acetatis, gr. 1; Acidi Acetici, min. xx; Alcoholis, fl. drs. ij; Aquæ Destillatæ, fl. drs. vj. Mix. Ten drops (= to gr. 1-50) to be taken in water three times a day. *Recommended by* Dr. Marshall Hall *as a tonic in cases of nervous exhaustion.*

℞. Strychniæ, gr. 1; Pulveris Zingiberis, gr. 40; Extracti Gentianæ, gr. 60. Mix very thoroughly, divide into twenty pills, and order one to be taken night and morning. *In partial paralysis, amaurosis &c. when the acute symptoms have subsided.*

408. *Strychnia and Steel.*

℞. Ferri et Ammoniæ Citratis, gr. 40; Liquoris Strychniæ, fl. drm. j (= to gr. ½); Infusi Quassiæ, ad fl. oz. viij. Mix. One-eighth part twice a day. *In chronic nervous affections with debility.*

℞. Ferri Redacti, gr. 40; Zinci Valerianatis, gr. 20; Strychniæ, gr. 1; Glycerini, sufficient to make a mass. Divide very carefully into twenty pills, silver them, and direct one to be taken three times a day, after food. *In hypochondriasis, great nervous depression &c.*

409. *Zinc and Nux Vomica.*

℞. Zinci Sulphatis, gr. 24; Extracti Nucis Vomicæ, gr. 6; Extracti Rhei, gr. 30. Make a mass, divide into twelve pills, and order one to be taken twice a day. *In weakness of the muscular system, atony of intestinal walls &c.* See F. 175, 387.

410. *Valerianate of Zinc.*

℞. Zinci Valerianatis, gr. 12—24; Extracti Belladonnæ, gr. 3—6; Extracti Gentianæ, gr. 24. Make a mass, divide into twelve pills, and silver them. One to be taken three times a day. *In some nervous disorders, in cases of habitual constipation, and in spasmodic contraction of the sphincter ani.*

℞. Zinci Valerianatis, Zinci Phosphatis, āā gr. 18; Extracti Rhei, gr. 24. Make a mass, divide into twelve pills, and silver them. Order one to be taken three times a day. *For epilepsy, neuralgia, hysteria &c. The valerianate of quinine, of soda, of ammonia, and of steel, may be employed in the same manner. In some cases of neuralgia as many as twelve or twenty grains of valerianate of ammonia in infusion of calumbo have been given every four hours.*

411. *Valerianate of Zinc and Quinine.*

℞. Zinci Valerianatis, gr. 12; Quiniæ Sulphatis, gr. 6; Pilulæ Rhei Compositæ, Extracti Anthemidis, āā gr. 20. Make a mass, divide into twelve pills, and silver them. One to be taken three times a day. *In hysteria, neuralgia &c.*

412. *Valerianate of Steel and Savin.*

℞. Ferri Valerianatis, gr. 24; Olei Sabinæ, min. xxiv; Pilulæ Assafœtidæ Compositæ, gr. 30. Make a mass, divide into twelve pills, and silver them. One to be taken three times a day. *In anæmia, hysteria, and neuralgia with amenorrhœa.*

413. *Sulphate of Zinc.*

℞. Zinci Sulphatis, gr. 24; Extracti Aconiti, gr. 12; Extracti Quassiæ, gr. 24. Make a mass, divide into twelve pills, and order one to be taken three times a day. *In epilepsy with neuralgic pains, lumbago, pleurodynia &c. Its efficacy is much increased by giving cod liver oil at the same time.*

℞. Zinci Sulphatis, gr. 12—24; Extracti Conii, gr. 36. Make a mass, divide into twelve pills, and order one to be taken three times a day. *In the chronic bronchitis of old people, as a tonic and sedative &c.*

414. *Phosphate of Zinc &c.*

℞. Zinci Phosphatis, gr. 20—40; Acidi Phosphorici Diluti, fl. drs. iss; Tincturæ Cinchonæ Flavæ, fl. drs. vj, *vel* Tincturæ Ferri Perchloridi, fl. drs. iss; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In some affections of the nervous system with debility.*

415. *Oxide of Zinc.*

℞. Zinci Oxidi, gr. 24—40; Extracti Anthemidis, gr. 30. Make a mass, divide into twelve pills, and order one to be taken twice a day. *In chronic alcoholism* (?), *chorea, hysteria &c.* Dr. Golding Bird *entertained an opinion that zinc has a specific influence on the nervous system, just as*

iron has on the blood. The dose may be gradually increased until twenty or even thirty grains of the zinc are taken in the day. It can sometimes be advantageously combined with opium.

416. *Zinc, Bark, and Glycerine.*

℞. Zinci Sulphatis, gr. 12—20; Tincturæ Cinchonæ Compositæ, fl. oz. j; Glycerini, fl. drs. xij; Aquæ Menthæ Piperitæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *During convalescence from acute disease, especially where there is emaciation with great nervousness and constipation.*

417. *Phosphorus Pills.*

℞. Micæ Panis, gr. 60; Aquæ Destillatæ, sufficient to make a mass. Then add—Phosphori, gr. 1. Mix thoroughly, divide into twenty pills, and order one to be taken thrice daily. *In extreme debility and mental depression. After cholera, diphtheria &c.*

418. *Phosphorus and Oil.*

℞. Phosphori, gr. 1; Olei Morrhuæ, fl. oz. vj. Mix. One or two teaspoonfuls three times a day, immediately after food. *In tuberculosis, rickets, scrofula &c.*

℞. Phosphori, gr. 1; Olei Amygdalæ, fl. oz. iij. Mix. One teaspoonful in a wineglassful of barley water three times a day.

419. *Hypophosphite of Soda.*

℞. Sodæ Hypophosphitæ, *vel* Calcis Hypophosphitæ, gr. 30—80; Infusi Chiratæ, fl. oz. viij. Mix. One-sixth part three times a day. *In phthisis, tabes mesenterica &c.* In *progressive locomotor ataxy* the efficacy of this mixture may be increased by giving a pill containing Nitrate of Silver (F. 59) with each dose.

℞. Sodæ Hypophosphitæ, gr. 80—240; Spiritûs Ætheris, fl. oz. j; Tincturæ Sumbulis, *vel* Tincturæ Cinchonæ Flavæ, fl. oz. ij. Mix. One teaspoonful in a large wineglassful of water three times a day. *In epilepsy, hysteria, neuralgia, some forms of hypochondriasis &c. this mode of administering phosphorus may be useful. The dose at first should be moderate and gradually increased. In very obstinate or severe cases of neuralgia, a cure may perhaps be effected by the hypophosphite of soda in forty or even sixty grain doses, repeated thrice daily, when the ordinary quantities have no effect. Where no appreciable benefit ensues in six or eight days, the remedy will probably prove useless however long it may be continued.*

420. *Preparations of Pepsine.*

The physician is sometimes hindered in the administration of tonics and animal food by the inability of the stomach to digest them. And this frequently happens where these restoratives are most needed,—in lingering illness, and during convalescence from acute disease.

The food is subjected in the stomach to the action of the gastric juice; a secretion consisting of water, probably of lactic and hydrochloric acids, and of an azotized substance having the nature of a ferment—pepsine. When from any cause the secretion of the gastric glands is deficient or arrested, recourse may be had to the use of artificial pepsine with great advantage. This substance is usually prepared from several rennet bags (the fourth stomach of the ruminants) by washing them, and scraping off the mucous membrane. The latter is then reduced to a pulp, macerated

in distilled water for twelve or twenty-four hours, and filtered. A sufficiency of acetate of lead is added to the liquor, the precipitate is collected, and a current of sulphuretted hydrogen passed through it. Then it is again filtered, evaporated at a low temperature, and the dry residue (pepsine) powdered.—The chief symptoms which call for the use of this agent, are—imperfect or slow digestion, with flatulence, acid eructations, nausea, low spirits, and lassitude; diarrhœa, with portions of undigested food in the evacuations; phthisis, cancer, and other diseases attended with great debility; and affections of the stomach itself,—as gastric ulcer, malignant disease of the pylorus &c. It is also beneficial in anæmia, want of appetite, offensive breath, dilated stomach, morbidly fetid stools, and sometimes in the sickness of pregnancy.

Pepsine should be given alone, or it may be mixed with certain medicines without its properties becoming deteriorated. Thus, when severe pain follows the ingestion of food the sixth of a grain of morphia can be added to each dose; when there is pyrosis, fifteen grains of the white bismuth; when the peristaltic movements are sluggish, the twentieth or twenty-fifth part of a grain of strychnia; and when there is anæmia, some preparation of steel—particularly the reduced iron, or the citrate of iron and quinia. It is a common occurrence for patients to tolerate ferruginous tonics and cod liver oil by the aid of pepsine, who cannot do so without.

There are several preparations of this agent which may be used. In BOUDAULT'S *Poudre Nutrimentive*, as purchased from MR. SQUIRE, the pepsine is mixed with starch in such proportions, that one part of the powder so formed will have the power of digesting four parts of fibrin at a temperature of 98° F.—Thus, fifteen grains of it will probably cause the meat of a mutton chop to be digested in the stomach. This, then, is the ordinary dose; and it should be taken at the commencement of the meal, either between two pieces of bread, or in a tablespoonful of lukewarm soup.

MORSON'S *Pepsine wine* is obtained from the gastric juice of the calf's stomach. It is an agreeable, slightly acidulous wine; the dose being one teaspoonful in water. The *Pepsine Lozenges* prepared by the same chemist are convenient and agreeable.

BULLOCK and REYNOLDS' *Pepsina Porci* is procured, as its name implies, from the stomach of the pig. In a short series of experiments its action was found by the Author superior to that of most other kinds. The dose is from two to five grains, made into a pill with glycerine.

And lastly, there is the *Rennet* or *Pepsine Wine* of DR. ELLIS, of Dublin, the preparation of which is thus described. Take the stomach of a calf fresh from the butcher; and cut off about three or four inches of the upper or cardiac extremity, which, containing few glandular follicles, may be thrown away. Slit up the organ longitudinally; and wipe it gently with a dry napkin, taking care to remove as little of the clean mucus as possible. Then cut it into small pieces (the smaller the better), and put all into a common wine bottle. Fill up the bottle with good sound sherry, and let it remain corked for a fortnight; at the end of this time it is fit for use. The dose is a teaspoonful in a wineglassful of water immediately after meals. Dr. Ellis also suggests this test for pepsine:—Put a small cup containing milk in a vessel of hot water until the milk becomes blood-warm. Then add a teaspoonful of rennet wine; and if it be genuine, the milk in two or three minutes will become as solid as blancmange.—See F. 394.

XVIII. UTERINE THERAPEUTICS.

421. *Ferruginous Emmenagogues.*

℞. Potassii Iodidi, gr. 18—30; Ferri et Ammoniæ Citratis, gr. 40; Tincturæ Nucis Vomicæ, fl. drm. j; Infusi Quassiæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In amenorrhœa with a torpid circulation.*

℞. Syrupi Ferri Iodidi, Glycerini, āā fl. oz. j; Olei Limonis, min. x. Mix. One teaspoonful in a wineglassful of water three times a day. See F. 32.

℞. Pilulæ Ferri Carbonatis, gr. 30; Pilulæ Cambogiæ Compositæ, gr. 15; Olei Sabinæ, min. xij. Make a mass, divide into twelve pills, and order two to be taken twice a day. *In amenorrhœa with anœmia and habitual constipation.*

℞. Ferri Valerianatis, gr. 18; Olei Sabinæ, min. xxiv; Extracti Aloes Barbadensis, gr. 6; Pilulæ Assafœtidæ Compositæ, gr. 36. Mix thoroughly, and divide into twelve pills. One to be taken three times a day. *In amenorrhœa with hysteria.* See F. 412.

℞. Tincturæ Ferri Perchloridi, fl. drs. iss; Potassæ Chloratis, gr. 60; Tincturæ Actææ Racemosæ, fl. drs. iv; Infusi Serpentariæ, ad fl. oz. viij. Mix. One-sixth part three times a day. *In debility, with imperfect menstruation, pains in the back, and an irritable condition of the buccal or gastric mucous membrane.* See F. 320.

422. *Stimulant Emmenagogues.*

℞. Extracti Ergotæ Liquidi, fl. drs. iij; Tincturæ Serpentariæ, fl. drs. vj; Decocti Aloes Compositi, ad fl. oz. viij. Mix. One-sixth part early every morning. *In amenorrhœa dependent on simple atony of the uterine organs.*

℞. Potassii Bromidi, gr. 60; Tincturæ Cantharidis, fl. drs. iss; Tincturæ Cinnamomi, fl. drs. vj; Aquæ, ad fl. oz. viij. Mix. One-sixth part three times a day.

℞. Olei Rutæ, min. xv; Extracti Ergotæ Liquidi, fl. drs. ij.; Mucilaginis Tragacanthæ, ad fl. oz. viij. Mix. One-sixth part three times a day.

℞. Boracis, gr. 60; Tincturæ Ergotæ, fl. drs. iv; Aquæ Cinnamomi, ad fl. oz. viij. Mix. One-sixth part three times a day.

℞. Tincturæ Hellebori (Phar. Lond. 1851), fl. drs. iij; Syrupi Zingiberis, fl. drs. vj; Infusi Sennæ, ad fl. oz. viij. Mix. One-sixth part once or twice a day. *In amenorrhœa with torpid action of the bowels.*

℞. Liquoris Strychniæ, fl. drm. j; Tincturæ Ferri Perchloridi, fl. drs. iss; Tincturæ Actææ Racemosæ, fl. drs. iv; Infusi Quassiæ, ad fl. oz. viij. Mix. One-sixth part three times a day.

℞. Podophylli Resinæ, gr. 6; Extracti Hyoscyami, gr. 24; Pilulæ Aloes et Myrrhæ, gr. 30. Mix, and divide into twelve pills. One to be taken at bed time for three or four nights in succession. *Where the menstrual flow is scanty, and the liver sluggish.*

423. *Medicated Vaginal Pessaries.*

℞. Plumbi Iodidi, gr. 80; Extracti Belladonnæ, gr. 24—40; Butyri Cacao, oz. 1; Olei Olivæ, fl. drs. ij. Mix; melt into a mass with gentle heat;

and pour it into a tube or roll of paper, about eight inches long and of the circumference of the little finger. Divide into eight pessaries, and order one to be introduced into the vagina every night or every other night. *In chronic inflammation and induration of the labia uteri, in ovaritis, in pelvic cellulitis, and in chronic cystitis.* For an account of the advantages of cocoa butter over other materials in making these pessaries the reader is referred to a paper by the Author in the *Obstetrical Transactions*, Vol. 4, p. 205, London, 1863.

℞. Unguenti Hydrargyri, gr. 80—120; Butyri Cacao, oz. 1; Olei Olivæ, fl. drs. ij. Mix. Divide into eight pessaries. Where there is tenderness of the cervix uteri, or of the ovaries, thirty grains of Extract of Belladonna or eighty grains of Extract of Conium should be added to the mass.

℞. Iodoformi, gr. 80; Butyri Cacao, oz. 1; Glycerini, fl. drs. iss. Mix. Divide into eight pessaries. *As a local anæsthetic in cancerous and other painful uterine diseases.*

℞. Extracti Aloes Socotrinæ, gr. 60; Olei Sabinæ, fl. drm. j; Butyri Cacao, oz. 1; Olei Olivæ, fl. drs. ij. Mix. Divide into eight pessaries, and order one to be introduced into the vagina every night. *As an emmenagogue and purgative.*

℞. Plumbi Acetatis, gr. 20; Extracti Opii, gr. 24; Butyri Cacao, oz. 1; Glycerini, fl. drs. ij. Mix. Divide into eight pessaries, and order one to be used every night. *In chronic leucorrhœa, acute and follicular vaginitis &c.*

℞. Zinci Oxidi, gr. 60; Extracti Belladonnæ, gr. 40; Butyri Cacao, oz. 1; Olei Olivæ, fl. drs. ij. Mix. Divide into eight pessaries. *In the same cases as the preceding. Also in cancer of the cervix uteri, and in irritability of the bladder.*

℞. Potassii Iodidi, gr. 40; Extracti Conii, gr. 120; Butyri Cacao, oz. 1; Olei Olivæ, fl. drs. ij. Mix. Divide into eight pessaries. One to be used every night. *In induration of the labia uteri in strumous subjects.*

℞. Acidi Tannici, gr. 120; Pulveris Catechu, gr. 60; Butyri Cacao, oz. 1; Olei Olivæ, fl. drs. ij. Mix. Divide into eight pessaries, and order one to be used twice a week. *In prolapsus uteri with relaxation of the vaginal tissues, and in menorrhagia.*

424. *Medicated Uterine Pessaries.*

℞. Acidi Tannici, Butyri Cacao, āā oz. ½. Mix. Divide into eight pessaries, each having the diameter of an ordinary stick of nitrate of silver. *In menorrhagia with a patulous condition of the os uteri, one of these pessaries may be introduced up the canal of the uterus and left there. It soon dissolves and coats the lining membrane with the tannin.*

℞. Aluminis, gr. 80; Zinci Sulphatis, gr. 40; Butyri Cacao, oz. ½. Mix. Divide into eight pessaries, as in the preceding formula.

℞. Unguenti Hydrargyri, Butyri Cacao, āā gr. 200; Extracti Belladonnæ, gr. 20. Mix, and divide into eight pessaries as in the first of these formulæ.

425. *Vaginal Injections.*

℞. Extracti Hæmatoxyli, oz. 1; Aluminis, gr. 120; Aquæ, fl. oz. ij. Mix, and label—"To be added to one pint of cold water to form an Injec-

tion."—It is to be used with a vulcanized India rubber syphon syringe, a pint or more of plain water being first thrown up.—*In diseases attended with an offensive discharge. The patient should be cautioned that the fluid will dye linen &c. soiled with it.*

℞. Zinci Sulphatis, oz. 1; Aluminis Exsiccatæ, oz. 5. Mix. Label,—"One teaspoonful to be mixed with a pint of tepid or cold water to form an Injection."—*In leucorrhœa, gonorrhœa &c.*

℞. Zinci Chloridi, gr. 80; Aquæ, fl. oz. iss. Mix. Label,—"One teaspoonful to be mixed with a pint of cold water to form an Injection. To be used night and morning."—*In gonorrhœa.*

℞. Liquoris Plumbi Subacetatis, fl. oz. vi; Extracti Papaveris, oz. 2. Mix, and label,—"One large tablespoonful to be mixed with a pint of warm or tepid water to form an Injection."—*In cases of leucorrhœa, with an irritable condition of the os uteri or vagina; as well as in rodent ulcer of the uterus.*

℞. Extracti Papaveris, oz. 1½; Tincturæ Belladonnæ, fl. drs. iv. Mix, and label,—"Two teaspoonfuls to be added to one pint of linseed tea, to form an Injection."—*As a soothing remedy in cancer of the cervix uteri, when there is but little tendency to hæmorrhage.—It may be employed twice or thrice in the twenty-four hours.*

426. *Sponge-Tents &c.*

For the purpose of dilating the mouth and cavity of the uterus, the female urethra, a strictured rectum, or a contracted orifice of the male prepuce, nothing can be better than the sponge-tents introduced into obstetric practice by Sir James Simpson. These instruments are of a narrow conical form, and of various sizes. They are made by dipping a piece of sponge into water, and then compressing it around a central wire with whip-cord. After drying, the cord is removed; the surface of the tent being then coated with a mixture of lard and wax, while three or four inches of tape are fastened to its base. The tents which the Author has generally used have been made by Duncan and Flockhart, of Edinburgh, and they are perfect. A metallic director, somewhat resembling the uterine sound with a sharp point, is needed for their introduction up the uterine canal; while their removal is accomplished by pulling the tape. A fresh tent must be introduced every twenty-four or forty-eight hours, until the tissues are sufficiently dilated to allow the finger to explore the cavity of the uterus.

Dr. Sloan, of Ayr, has suggested the use of the dried stem of the sea-tangle (Laminaria digitata) as a substitute for sponge. The stem of this common marine plant is cylindrical, soft, flexible, firm, and capable of being greatly reduced in size by drying. On subsequently being supplied with sufficient moisture it dilates to at least three or four times its size. The tangle-tents produce equable dilatation, are in all respects very efficient, are cleanly, and ought to be cheap. They are more easily introduced into the uterus than the sponge-tents, but they are also more liable to slip out again when the pressure of the finger is removed. In employing these tents it seems best to dip them in hot water just prior to introducing them; avoiding the use of oil, as it interferes with their absorbing power.

Tents may also be made of gentian and of elm bark; but the Author has had no experience with these kinds, having been perfectly satisfied with the sponge and sea-tangle.

427. *Galactophora and Galactophyga.*

a. GALACTOPHORA (Γάλα, milk; φέρω, to bear), or GALACTAGOGUES (Γάλα; ἄγω, to drive out), are remedies which increase the secretion of milk. Defective lactation is not common amongst healthy mothers, but with the weak and delicate it is very frequent. When it arises amongst the first class it is generally due to over-feeding; when amongst the second, anæmia is its cause. In either class, a torpid condition of the mammary gland may be its source.

Defective lactation from plethora will be best treated by purgatives, the most efficient being castor oil. All kinds of beer, wine, and spirits are to be prohibited. Animal food is to be allowed; with vegetables, bread, tea, &c. A mixture of milk and soda-water, in equal parts, forms an excellent drink in these cases. The patient is not to be weakened; but she should be cautioned against the vulgar error, that a large quantity of food is necessary simply because she is nursing.

Defective lactation from anæmia is not uncommon. When the weakness is not such as to forbid suckling, the health ought to be improved by animal food; by a fair allowance of ale or porter; and by taking milk, or cocoa made with milk, instead of tea or coffee. A raw egg beaten up in a tumblerful of milk, once or twice a day, will do good. Then ammonia and bark (F. 371) may be given; or some non-astringent ferruginous tonic (F. 403, 405); or cod liver oil.

Defective lactation from torpor of the mamma is the most frequent variety. In these cases benefit will be derived from irritating the gland and nipple, —as by the careful use of the breast pump; by drawing out the nipple several times with the fingers, before the infant is applied; by passing an electric current through the gland, for fifteen or twenty minutes daily, for several days in succession; or by the application of a hot carrot poultice, during some hours daily. The breasts are to be kept warm. Moderate sexual intercourse is also useful.—Beef and mutton, game and poultry, white fish, oysters, stewed eels, potatoes, parsnips, lettuce, carrots, turnips &c. will increase the secretion. There is no objection to stout, or to any other kind of malt liquor, provided the stomach can digest it; while from one to two pints of cow's milk should be allowed daily.—With regard to drugs perhaps the most efficacious is a decoction of the leaves and stalks of the *Ricinus communis*, or *Castor-oil plant*. DR. ROUTH recommends the administration of a strong decoction of this plant or of an extract; the dose of the former being from one to two drachms daily in water, or of the latter five grains. The castor-oil leaves may also be applied over the breasts, or an infusion of them may be used with lint and oiled silk. Amongst other remedies reputed to possess galactagogue properties may be mentioned,—*Aqua Anethi* or *Dill water*, and *Oleum Anethi*; *Aqua Anisi* or *Aniseed water*, and *Oleum Anisi*; and particularly *Aqua Fœniculi* or *Fennel water*, and *Oleum Fœniculi*. The dose of either of these waters is from two to four ounces, and of the oils about five minims on a lump of sugar, twice or thrice daily.—The value of such agents as the *Malva Sylvestris* or *Marsh mallow*, of the *Saponaria vaccaria* or *cow basil*, of the juice or decoction of *Broom-tops*, and of the infusion of *Althæa root*, is very doubtful.

Sore nipples may indirectly be the cause of defective lactation. Slight excoriations, as well as chaps and fissures, can generally be healed by the use of the dilute solution of subacetate of lead, or by the liniment of lime, or by an ointment of balsam of Peru, or by a lotion containing borax and glycerine. Frequently drying the nipple with a soft rag, and then dusting

it with spermaceti which has been finely powdered by the aid of a few drops of proof spirit, will be found exceedingly efficacious. Where the fissures are deep, light cauterization with nitrate of silver often answers well; or the painful spots may be painted with collodium, leaving the summit of the nipple free for the escape of the milk. A well-made shield, provided with an artificial nipple, will often enable a woman to suckle who would otherwise be unable to do so. The child's mouth must be looked to, so that if there are aphthæ they may be cured.

β. GALACTOPHYGA (Γάλα, milk; φεύγω, to shun) are the remedies employed to arrest the secretion of milk.

Extract of Belladonna, is I believe the most certain agent of this kind. Reduced to the consistence of treacle, by the addition of a little glycerine or water, it should be freely painted over each breast, night and morning; the parts being also covered with wet lint and oiled silk, or with a cold bread and water poultice. At the same time, one-quarter or one-third of a grain of the extract, may be administered twice or thrice daily, if a speedy effect be desirable. Sometimes it is advantageously given with quinine and camphor (F. 383).

Iodide of Potassium often succeeds, and is particularly useful if there be any painful engorgement of the glands. Six or nine grains daily, in divided doses, should be administered. Occasionally it may be better to give about ten minims of the tincture of belladonna with each dose; or the iodide may be combined with an active purgative salt, as the sulphate of magnesia (F. 31).

Colchicum has not succeeded well in the Author's hands when given alone. But combined with the sulphate of magnesia, in the proportion of twenty minims to sixty grains, administered two or three times a day, it has appeared serviceable.

Camphor has been recommended. Three or four grains, with the same quantity of henbane may be given in a couple of pills at bed-time; while frictions with the camphor liniment, or the compound camphor liniment, may be employed twice or thrice daily.

Tobacco acts in a similar manner to belladonna. An ointment, made by boiling half an ounce of fresh tobacco in eight ounces of lard, is to be kept continually applied. Or this remedy may be employed in the form of a fomentation.

Sage tea is a popular remedy, which can certainly do no harm.

428. *Aphrodisiacs and Anaphrodisiacs.*

α. APHRODISIACS (Ἀφροδίσια, venery) are medicines which excite or increase the sexual powers.

Many remedies have been supposed to act as sexual stimulants, but the majority of those which have been recommended merely have the property of exciting the imagination. This is especially the case with *Musk*, *Castoreum*, and *Ambergris*; extravagant substances which ladies may use as perfumes if they please, but which should be abolished from the Materia Medica. The volatile sulphurated or allyle oils, obtained from alliaceous and cruciferous plants (*Allium sativum*, *Allium ceva*, *Sinapis nigra*, *Cochlearia Armoracia &c.*), have had some slight repute. *Indian hemp* and *Opium* have been used; but the latter, at least, generally exercises a contrary effect to that desired. *Cantharides*, *Turpentine*, and *Borax* probably possess no aphrodisiac powers, though popularly thought to do so. The

only remedies which may truly be supposed to act as sexual stimulants are the various preparations of *Iron, Strychnia and Nux Vomica, Quinine,* and *Phosphorus.*

β. Anaphrodisiacs (Ἀ, priv., and ἀφροδίσια, venery) are generally believed to have the power of repressing the sexual feelings.

Nauseants (*Tartarated Antimony* and *Ipecacuanha*), drastic purgatives (*Elaterium, Jalap, Calomel &c.*), *Camphor* in large doses, *Carbonate of Soda, Hemlock, Tobacco,* and *Alcoholic drinks* probably possess anaphrodisiac properties.

XIX. CLIMATES FOR INVALIDS.

429. *General Observations.*

Notwithstanding the excellent writings of Sir James Clark, Edwin Lee, Granville, Burgess, Alexander Taylor, D. J. T. Francis, Scoresby-Jackson, and others, many invalids migrate every autumn to the south of France, Italy, Spain &c. merely to find a grave. This happens partly because cases of far advanced disease are still sent abroad, when they ought to be kept at home; partly, because a situation unfavourable to the particular malady is selected, the laws of climate being ill-understood; and, in some measure, because it is difficult to persuade the sick that simple change to another country is only one of the means by which they are to regain health. For although there can be no doubt that in change of air physicians have an efficient remedial agent, yet it is certain that this remedy, like all others, is not of indiscriminate application, but must be prescribed with judgment and discretion.

The diseases most likely to be cured or alleviated by the benign influence of change of climate are the following:—Pulmonary consumption; chronic laryngeal and bronchial affections; asthma; disorders of the digestive organs, with the various forms of dyspepsia; chronic gout and rheumatism; functional derangements of the sexual organs; affections of the kidneys; and hypochondriasis. A change is beneficial to strumous delicate children; is invaluable as a restorative during convalescence from acute or prolonged disease; and especially is it one of the chief resources of "preventive medicine."

There is no model climate: no country can boast of being perfect. All that the physician's knowledge and tact will enable him to do is to select that situation which possesses the greatest advantages and the fewest drawbacks for the particular case he has in hand. Phthisis, for example, is prevalent and fatal in all countries, though more so in some than others. Moreover, it must be remembered, that through the peculiar nature of zymotic (ζυμόω, to ferment) diseases, towns usually healthy are apt to be periodically visited by epidemics; and such places can only be avoided by consulting recent returns, or by instituting inquiries on the spot. In considering the sanative influence of any climate, attention must be paid to the aspect of the locality, its drainage, and its elevation above the sea level; to the temperature and its equability; to the dryness or moisture of the soil and atmosphere, a degree of heat being often well-borne when the air is dry, which is quite unbearable when it is moist; and to the nature of the prevalent winds. The amount of rain which descends in a season is not of such moment as the way in which it usually falls; a region liable to sharp heavy showers being much more favourable for the invalid, than one where

it drizzles—like a Scotch mist—for days together. Luxuriant vegetation, though agreeable to the senses, may merely mean high temperature combined with moisture; conditions not favourable to the phthisical. So also the districts where marshy lands abound, or where occasional inundations occur, are notoriously unhealthy; for the evaporation of the water lowers the temperature, while the decaying vegetable matter becomes the source of malaria.

The beneficial effects of sea-air are due to its purity, to the equability of its temperature, to the iodine it contains, and to the constant presence of ozone. The latter—the most powerful oxidising agent known—is a stimulant to all the vital functions; but if in excess, it causes great irritation, particularly of the organs of respiration. Ozone, found also in the air of mountainous and rural districts, has the property of decomposing iodide of potassium, uniting with the potassium and liberating the iodine, which latter body may be detected by starch. Hence, test-papers saturated with a solution of iodide of potassium and starch are employed; the iodine, when freed by the ozone, uniting with the starch and forming blue iodide of starch. (See F. 389).—While sea-air has a certain amount of influence in preventing tuberculosis, it is by itself insufficient to cure this disorder. Mountain-air is also pure, has an average low temperature, and contains a large proportion of ozone.

Although a classification of climates can only be artificial, and merely useful as affording a rough view of their nature, yet those countries mostly resorted to by invalids may be arranged in four divisions, viz. the relaxing, sedative, exciting, and bracing.

1. In the *relaxing* climates (*e.g.* Pisa, Madeira, Torquay) there is an elevated temperature with an excess of communicable humidity. They are unfitted for cases where we wish to restore diminished tone —to build up shattered constitutions.
2. In the *sedative* climates (Rome, Pau, Cannes, Venice) we find a freedom from great dryness on the one hand, and from communicable humidity on the other. We should not select these where it is desirable to quicken a slow circulation, or where the secretions are too abundant.
3. In the *exciting* climates (Nice, Naples, Montpellier, Florence, Genoa &c.) there is an excess of dryness, a highly electric state of the air, an excess of ozone, and during the early months of the year keen irritating winds. Such climates are injurious where there is nervous and vascular excitement, a tendency to inflammation, or where functional repose is needed.
4. In the *bracing* climates (Southport, Brighton, Mentone, Malaga, Algiers &c.) the winter temperature while comparatively high is not oppressive, the air contains a moderate proportion of ozone, there is a certain amount of dryness, and the winds are less irritating than in the exciting class. They are generally to be avoided where there is a very sensitive state of the system, a tendency to apoplexy from hyperæmia, and in many affections of the heart or large vessels. But, as a general rule, they are more suited to cases of pulmonary consumption, and to renal and hepatic diseases than either of the others.

It would be of little practical use to introduce an extended table giving an approximation to the death-rate of different countries. But it is interesting to shortly notice, that on an average of ten years (1851—60), the annual mortality from all causes, stands thus:—

For England & Wales	population in 1861 being	20,066,224,	the deaths are . . 20		to each 1000 persons living.
„ London	„	2,803,989,	„	24	„
„ Bristol	„	66,027,	„	27	„
„ Birmingham	„	212,621,	„	27	„
„ Manchester	„	243,988,	„	31	„
„ Liverpool	„	269,742,	„	33	„
„ Dover	„	31,575,	„	20	„
„ Hastings	„	26,631,	„	18	„
„ Eastbourne	„	10,721,	„	17	„
„ Brighton	„	77,693,	„	22	„
„ Worthing	„	18,921,	„	18	„
„ Isle of Wight ...	„	55,362,	„	17	„
„ Scarborough.....	„	30,425,	„	21	„

For Paris	population in 1862 numbering	1,696,141,	the deaths are . . . 28		to each 1000 persons living.
„ Berlin	1861 „	547,571,	„	25	„
„ Vienna	1861 „	512,000,	„	49	„
„ Turin	1858 „	179,635,	„	26	„
„ St. Petersburg...	1858 „	520,131,	„	41	„
„ Moscow	1858 „	386,370,	„	38	„

When the locality to which an invalid is to resort has been decided upon, he should, on leaving home, be provided with a concise code of laws in writing; or he must be directed at once to consult a physician in practice at the town selected. His route had better be marked out for him; he should be cautioned as to the rate at which he is to travel; rules must be laid down as to the regimen he is to adopt; while he ought to be reminded that warm clothing, especially flannel, will be required. Frequently it will be better to have cheerful apartments, with a southern aspect, secured beforehand; so that at the end of his journey a few days' perfect rest may be enjoyed. The object of the tour ought to be clearly explained, while he is to be warned not to expect too much, especially at first. The physician in sending his patient abroad, is merely placing him in the position most favourable to recovery,—but still where other remedies and general precautions will be indispensable. Foreign travel would be more agreeable to most men, could the plague of sight-seeing be dispensed with. But for the sick man to visit picture galleries, museums, damp old ruins, cold churches &c. is frequently to frustrate the only object he should have in view, viz. the restoration of his health. In giving directions as to diet it must be recollected that travelling is very exciting and wearying to the invalid; that the organs of digestion almost always become more or less deranged; and that many articles of food which are taken with advantage in England, disagree in warmer latitudes.

In many instances the Author has found it advantageous for the invalid leaving England for several months to carry with him a few pure drugs; together with a brief account of their properties, doses, and modes of combination. Not that he is to be encouraged to tamper with his health by playing the dangerous part of the amateur physician; but good advice cannot always be procured, or it may perhaps be had where only inferior drugs are obtainable for compounding the prescription. The medicines which are generally ordered are these:—

Sulphate of Quinia, 1 oz.
Reduced Iron, 1 oz.
Liquid Extract of Yellow Cinchona, 4 fl. oz.
Spirit of Ether, 6 fl. oz.
Chloroform, 2 fl. oz.
Bicarbonate of Soda, 4 oz.
Compound Powder of Rhubarb, 6 oz.
Aromatic Powder of Chalk and Opium, 3 oz.

Liquid Extract of Opium, 2 fl. oz.
Sulphate of Zinc (for emetics, lotions, collyria &c.), 3 oz.
Tincture of Arnica (for bruises, burns &c.), 2 fl. oz.
Morphia and Ipecacuan Lozenges, ¼ to 1 lb.

Scales and weights: an ounce and a minim measure: a small spatula: an enema syringe, the cheaper and more simple the better: with lint and strapping, will complete the medical equipment. In certain special cases it may be well to substitute for some of the above drugs—blue pill, iodide of potassium, colchicum, gallic acid, pepsine prepared from the pig's stomach, and oil of peppermint. Two invaluable medicines—brandy and cod liver oil—can be procured everywhere.

La Poudre Insecticide is sold in France, and is a very efficacious remedy against fleas. One or two teaspoonfuls, sprinkled over the sheets, serve to destroy these foes to comfort and sleep. Persian powder, made with the leaves of a kind of groundsel, will have a similar effect; and so will camphor, though in a less degree. Mosquito curtains may also be taken from England; for mosquitos are a serious nuisance to all, but especially to the invalid, and they continue venomous in the south until the cold nights set in.

430. *Middlesex.*

α. LONDON.—This city, the largest and most healthy in the world, is bounded by moderate hills; has a soil of loam and gravel, with clay resting on a bed of chalk; and is some fifty miles from the sea to the south and east. In 1861 the area of London was 122 square miles,—giving about 23,000 persons to a square mile of surface. The mean annual temperature is about 50° F.: the average winter temperature being 38°, and that of the summer 63°. The nights especially are warmer than in the environs. The annual rain-fall is 21·6 inches; the average number of days, more or less wet, being 178.

Delicate invalids are often better in London during the winter and spring, than in the country, owing to its greater warmth, and the greater steadiness of the temperature from day to day.—Asthma is such a capricious disease, that it is impossible to say beforehand what particular climate will suit any special example of it. But it is certain that very many asthmatics are better and more free from attacks in a large city, than in the clearer atmosphere of the country. Sufferers from this affection can especially apply to themselves the words of BACON,—"The goodness of the air is better known by experience than by signs."—Phthisical invalids will find BROMPTON or CHELSEA the most sheltered spots of the metropolis; but if they are benefited by a bracing air they must resort to BAYSWATER, or HIGHBURY, or the upper part of KENTISH TOWN, or to HIGHGATE.

β. HAMPSTEAD.—Many years ago, a mineral spring of repute in this village rendered it a fashionable watering-place. It is still a healthy suburb. From the heath, upwards of 200 acres in extent, there are many fine views. The air is pure and bracing, and well-suited for children and convalescents. The low parts are damp, and should be avoided.—Like GREENWICH, RICHMOND, LEWISHAM, SYDENHAM &c., it often affords a convenient temporary residence for families driven from their town homes by the outbreak of some eruptive fever or other infectious disease.

431. *Kent.*

α. MARGATE.—The tonic and bracing air of this familiar locality render it a very valuable temporary residence for many invalids. The atmosphere

is extremely pure, the soil is dry and absorbent, and the water-supply good. Perhaps no place could be named which is more suitable for restoring the health of children and young people afflicted with any form of scrofula. The bathing is good; though the flatness of the sands may be a disadvantage to the adult.

The mortality among the residents is very low. For a long series of years (1838 to 1862) the average annual death-rate has been only 16 per 1000 for this class.—The season lasts from May until the end of September. Being open to the north and east, the air is very bleak during the late winter and early spring months.

β. RAMSGATE.—Is much frequented in the summer owing to its gaiety, facilities for sea-bathing, &c. It is an excellent residence for delicate children during the months of October and November, when the crowds of visitors have left. The climate is warmer than that of Margate, and more bracing than that of the south-coast watering-places.—BROADSTAIRS is about three miles from Ramsgate, and is an excellent and quiet sea-bathing place for children.

γ. DOVER.—This sheltered town is generally full in the summer and autumn. As a winter residence it is colder and more exposed to high winds than Hastings, but it is not therefore unsuitable for invalids who can bear a bracing air. The climate proves especially serviceable to those subject to chronic dyspepsia, nervous debility, congestion of the liver &c.

δ. FOLKESTONE.—The beautiful country in the neighbourhood, and the fine tonic air of this town, render it a most agreeable residence from the end of May until the beginning of November. Sufferers from dyspepsia, nervous irritability, and over-work will derive most benefit from this climate.—SANDGATE, about two miles to the east, offers a milder winter climate, with an exemption from fogs. The mean winter temperature is 41·76°. Consumptive and dyspeptic invalids, who find Brighton too bracing and Hastings too relaxing, may well winter at Sandgate, especially if they need quiet and seclusion.

432. *Sussex.*

α. HASTINGS AND ST. LEONARDS.—Situated about midway between Brighton and Dover, the climate of Hastings is very useful for invalids during the winter months. Well sheltered from cold winds, with lofty cliffs and undulating downs, a beautiful and cultivated country, a dry and absorbent soil of clay overlaid with sand, a pure sea-air, and free from all sources of malaria, it may be regarded as a healthy sedative climate during six or eight months of the year. The bathing also is good in the summer. —The mean annual temperature is 51°; that of winter being 40°, of spring 44°, of summer 60°, and of autumn 53°. The amount of rain in the year equals about 28·34 inches. South and south-westerly winds are most prevalent during the winter and spring, but unless high they cause but little discomfort. In the neighbourhood are various springs impregnated with iron and carbonic acid, but they are not much used.

Hastings is suitable for cases of dyspepsia with loss of tone, chronic bronchitis, neuralgia, chronic rheumatism, gout, and scrofula. For the diseases of childhood it is a good locality. The author has not seen phthisical subjects derive much benefit from it, however; and sometimes he has thought that it seemed to induce hæmoptysis. DR. MACKNESS (*Hastings considered as a Resort for Invalids*, London, 1842) has given a table of the causes of death during four years; from which it appears

that the total number was 865, of these 254 being from chest affections, and of these latter 161 from consumption,—viz. 91 inhabitants, and 70 visitors.

Although Hastings and St. Leonards now form one town, yet the former is the warmest and most protected, and hence best suited for very delicate invalids. Such as find Brighton agree with them from October until the end of December, may often advantageously spend January and February at St. Leonards.

β. EASTBOURNE.—Filling, as it were, a chasm between two cliffs, one of which is Beachy Head, this watering-place is rapidly increasing in importance. It is visited in the summer for sea-bathing; but is a good residence for invalids requiring a bracing air from September until the beginning of January. Cases of scrofula, consumption, hydrocephalus, and tabes mesenterica often derive benefit here. It is also to be recommended in functional disorders of the heart and nervous system.

γ. BRIGHTON.—The climate is bracing and restorative, and is especially beneficial to invalids during the autumn and early months of winter. Although the town is sheltered on the north and north-east by the South-downs, yet from the beginning of February until nearly the end of May cold north and easterly winds prevail, which prove very irritating even to the healthy. The annual fall of rain is 25·6 inches. The western is milder but more damp than the eastern cliff; but the tonic air of the latter agrees admirably where the circulation is torpid. The Old Steyne offers a climate intermediate between that of the western and eastern cliffs.

Diseases of a nervous hypochondriacal type are much relieved by the invigorating atmosphere of Brighton. Great good is also experienced when the vital powers are sluggish, when there is anæmia, or when disease of the kidneys exists. Strumous children and convalescents from acute disorders may also be sent to this part of the coast. It is unsuitable for individuals of an irritable or plethoric habit; for such as have a dry harsh skin; and for those who have a tendency to asthma, inflammatory affections, hæmorrhoids &c.

δ. WORTHING.—Lying twelve miles west of Brighton and with an aspect almost due south, this town is fully exposed to the sun's rays. It is sheltered from the hot winds of summer and the cold of winter by the South-down hills, which have an average height of 600 feet. Hence it is warm in winter until the middle of February, and cool in summer; the air being neither too bracing nor too sedative. The mean temperature for the year is about 51°. The rainy days are fewer, and the quantity of rain that falls is less, than at Ventnor or in the West of England. Occasionally, the east and north-east winds render the air very bleak.—In summer the fine sands afford excellent bathing.

Worthing can be recommended as a good residence for convalescents; as well as for sufferers from lung diseases, hooping-cough, scrofula, chronic rheumatism, and renal affections.

433. *Hampshire.*

α. SOUTHAMPTON.—At the head of the Southampton-water, which stretches from the Solent and Spithead into the interior of Hampshire for some eleven miles, is the clean and handsome town of Southampton. The climate is said to be mild and humid, intermediate in character between that of Devonshire and Hastings. Though sheltered by the high grounds behind it, and by the New Forest, yet it is unsuited for most invalids, the

temperature being variable. The effluvia from the river at low water, are often very unpleasant.

A short distance from Southampton-water is NETLEY. Here has been built the *Royal Victoria Hospital*; which is especially intended for the reception of invalid soldiers from foreign stations, and which has become the head-quarters of the Army Medical School. The site seems to have been well chosen; while in most respects the arrangements of the building are excellent.

β. BOURNEMOUTH.—This favourite watering-place, situated within a fine bay, is about ten miles from the western extremity of the Isle of Wight. It is well screened by hills and pine-woods from the north and north-east winds, but is exposed to the south-westerly gales. Owing to the nature of the soil, out-door exercise is practicable immediately after rain; while there are great facilities for easy walking. The mean annual temperature is 51·00°; that of winter being 42·38, spring 49·11, summer 60·18, and autumn 51·71.

It may be recommended as a quiet healthy resort, during the winter, for such invalids as are not affected by moderate variations of temperature, for those who are weak without having actual organic disease, and for persons returning from tropical countries. The climate is mild but not relaxing. During the spring and early summer months thick fogs, and cold easterly winds are rather prevalent. In summer there is good sea-bathing; but the heat, and clouds of fine sand which rise when there is any wind, render Bournemouth unpleasant to many at this season.

434. *Isle of Wight.*

α. RYDE.—The towns on the north side of the island—Ryde and Cowes—are more suitable for summer visitors requiring change of air and occupation, than for invalids needing a dry atmosphere and repose. Although the attractions of both localities are great, yet in neither is the bathing good.

β. THE UNDERCLIFF.—This is the best part of the island for a winter and spring residence. It extends from the village of Bonchurch to Black Gang Chine, a distance of six miles along the south-east coast. The scenery is romantic, sea-fogs are rare except towards the end of May and during June, and both soil and atmosphere are dry; while it is well protected, by a range of lofty chalk and sandstone hills, from the north, north-east, north-west, and west winds. It is raised some fifty or seventy feet above the level of the beach; and may therefore be represented, in the words of SIR JAMES CLARK "as a lofty natural terrace, backed by a mountainous wall on the north, and open on the south to the full influence of the sun from his rising to his going down, during that season at least when his influence is most wanted in a northern climate."—The mean annual temperature is 51·35°; that of winter being 41·89, spring 49·66, summer 60·63, and autumn 53·58. The mean annual fall of rain is 23·48 inches; whereas at Newport, in the centre of the island, it is 33·60.—The best season is from the beginning of November until the end of May: between August and October it is too relaxing and humid.

The Undercliff may be resorted to by all those who need a genial and agreeable winter and spring climate. It allows the phthisical invalid to re-oxygenate his frame by almost daily exercise in the open air, at a season when he would be unable to do so at most other parts of England. The air is mild, and yet of a bracing tonic character; and hence it differs from

that of *Torquay*, which is of a more moist and relaxing nature. Patients with laryngeal and bronchial affections, hepatic and renal disease, atonic and nervous dyspepsia, and children with glandular swellings or strumous ulcers, do very well at this part of the island.

435. *Dorsetshire.*

α. POOLE.—Standing on a peninsula, this old-fashioned town is an agreeable place for such as have to be driven from books and business to quiet and idleness. Owing to geographical peculiarities in its position, the tides in Poole harbour ebb and flow twice in the twelve hours.

β. WEYMOUTH.—This town, with the adjacent MELCOMBE-REGIS, is a favourite summer resort; the beautiful bay of the latter, with its fine sands, being well adapted for bathing. In the autumn and winter, the temperature is equable; whilst the air is so pure that it is suitable for invalids from various diseases. Indeed, so healthy is the climate, that DR. ARBUTHNOT is reported to have jocosely said,—"A physician could neither live nor die at Weymouth." As it is the nearest English port to Guernsey, seventy miles distant, it forms the station of the mail boats.

436. *Devonshire.*

α. BUDLEIGH SALTERTON.—A quiet retired village, nearly five miles to the east of Exmouth, in a small open valley on the sea-shore. For invalids who can climb the neighbouring hills it offers a mild and protected winter residence.

β. DAWLISH.—Resorted to in summer for bathing, Dawlish may be recommended as a winter resort for those needing a mild air. It is more humid than Torquay. Protected from northerly and south-westerly gales, it is still unfavourable in the spring owing to the biting east wind which finds access to the picturesque valley on either side of which this small town is placed.

γ. EXMOUTH.—The new portion of this town stands high, and is much exposed to wind from every quarter. The old part lies along the margin of the river and the base of Beacon Hill, and is damp; though it has the advantage of being protected from south-westerly and northerly gales. Invalids who require a bracing air may be benefited here; but the cold variable weather in winter makes it unsuitable for those with pulmonary complaints.

δ. SALCOMBE.—Well sheltered, this is said to be the warmest spot on the south-west coast. For such as need a mild and equable winter temperature this small spot would be useful were it not for the want of convenient ground for exercise.

ε. SIDMOUTH.—Recommended in summer and autumn for its bathing, Sidmouth is also a good situation for invalids requiring a mild relaxing air during winter. The mean annual temperature is 50·1°; that of winter being 40·3, of spring 48·1, of summer 60·3, and of autumn 51·6.—The annual rain-fall is 22·68 inches, the average number of days on which rain falls in the year being 141.—It is tolerably protected from the north-west and north.

ζ. TEIGNMOUTH.—The mean winter temperature is six degrees higher than that of London, while that of summer is five degrees lower. On account of its exposed position it is not suitable as a winter home for the sick.

η. TORQUAY.—The climate of this favourite locality, while mild and equable, is less humid than that of many other places on the south-west coast. It has a southern aspect, and is sheltered on all other sides by heights. Mean annual temperature 52·1°; the average for the winter being 44·0, spring 50·0, summer 61·2, and for the autumn 53·1. The annual amount of rain is 28·20 inches; and it falls on about 132 days in the year. The season is from September to May; and though it is not absolutely necessary for the invalid to leave during summer, yet it will be better for him to do so. November is generally very fine, being bright and sunny.

Torquay is useful in many cases of phthisis, chronic bronchitis, laryngeal affections, and rheumatism. In heart disease, when this organ is oppressed without much lowering of the vital powers; in inflammatory dyspepsia, with an over-irritable condition of the mucous membranes generally; and for invalids returning from tropical climates,—this town may be recommended.

The climate has a soothing influence upon the organs of respiration; but the effect upon the nervous, digestive, and muscular systems varies according to the situation which the invalid adopts for his residence. DR. RADCLYFFE HALL recommends a feverish excitable consumptive patient to lodge in a sheltered part close to the sea, provided sea-air does not disagree. When the feverishness is less marked, and there is danger from a sinking of the powers of life, a situation part-way up the hills suits better; or the beautiful district of MEADFOOT, protected from the east and north-east by an extensive range of cliff, may be selected if close proximity to the sea be desirable. After a residence at the sea-level for a time, removal to the houses on the southern faces of the hills often proves useful.

θ. EXETER.—This fine old city, though standing upon elevated ground is sheltered. Except during July and August (when it is close and relaxing) it offers an advantageous residence for invalids requiring a residence away from the sea. Its mean temperature in winter is 41·4°, spring 49·5, summer 62·0, and autumn 51·9. The average number of days on which rain falls in the year is 162, the annual amount being 31·90 inches.

Other neighbouring inland towns are agreeable and healthy,—KINGSBRIDGE, TOTNES, NEWTON-ABBOTT, TIVERTON, CREDITON, CULLOMPTON, OTTERY, HONITON &c. Of the moor towns, it need only be said the air is moist and misty. DARTMOOR is bleak and chilly, the mornings and evenings even of summer being cold.

437. *Cornwall.*

α. PENZANCE.—This sea-port, on the north-west side of Mount's Bay, is about ten miles from the Land's End. The climate is mild but relaxing. It has a mean annual temperature of 51·8°; the mean for the winter being 44·0, for the spring 49·6, for the summer 60·2, and for the autumn 53·3. As a winter residence for invalids it possesses the two-fold advantage of warmth, and great steadiness of temperature during the day and night. The disadvantages are that it is much exposed to wind and storm, and that it is humid—the annual rain-fall being 44·6 inches. It should be avoided in the spring.

Penzance may be useful in chronic bronchitis, in the earliest stage of consumption if there is a dry harsh cough with scanty expectoration, and in the case of aged invalids who derive benefit from a warm moist atmo-

sphere. It is injurious in phthisis with relaxation of the mucous membranes and copious secretion, in cases of hæmorrhage, in atonic dyspepsia, and in debility of a low nervous type.

β. Land's End.—The climate somewhat resembles that of South Devon, but as regards humidity and exposure to winds it is inferior. Invalids should not remain in this district during the winter and spring.

438. *Gloucestershire and Worcestershire.*

α. Bristol.—This city, situated chiefly in Gloucestershire but partly in Somersetshire, has nothing to recommend it to an invalid. A few years since, a gentleman who assured the Author that he always suffered either from gout or asthma, remarked that in Bristol he was generally afflicted with the former, but never with the latter; though directly he left this spot his breathing became impeded. Of the two evils he preferred a smoky city with gout, to pure country air and asthma.

β. Clifton.—Built on the sides and summit of a precipitous limestone hill, about one mile west of Bristol. In former days invalids resorted to this spot on account of its hot well: now it is in repute for its mild winter climate. The mean temperature for the year is 51·26°; that for the winter being 39·91, spring 49·79, summer 63·87, and autumn 51·49. The annual rain-fall is 32·56 inches; and the number of rainy days about 169. The lower part of the town is much milder, and more humid than the upper; and hence while preferable during winter for many cases, is too relaxing in the summer. The loftier situations (such as York Crescent, with its southern aspect and sheltered sunny promenade,) are beautifully situated and well adapted for invalids during the summer and autumn months.

The Hot Well lies at the foot of St. Vincent's Rock. It yields an abundant supply of water at about 75° F., containing small quantities of magnesia and lime, with an unusual amount of carbonic acid gas. Owing to the latter, it might perhaps be advantageously taken in dyspepsia with irritability of the gastric mucous membrane; but it is very rarely, if ever, employed medicinally.

γ. Malvern.—Perhaps there are few more healthy and pleasant spots in the kingdom for a summer residence than this. Built on the declivity of the Malvern hills, situated eight miles S.S.W. of Worcester, the scenery is all that can delight the convalescent, or the man who has broken down from over-work. The air is pure and invigorating; and is well adapted for bracing the system of such invalids as can bear an elevated site. Owing to the eastern aspect of the village, the strong winds of the winter and spring are severely felt.

There are two springs in the neighbourhood, which may be frequented for amusement. But the waters of St. Anne's Well and of the Holy Well are only pure and soft; the very small quantities of muriate of lime, sulphate of soda, and carbonate of lime which they contain, being useless in a medical point of view.

439. *Lancashire and Yorkshire.*

α. Southport.—On the west coast of Lancashire, between the mouths of the Mersey and the Ribble, this watering-place is eighteen miles from Liverpool and thirty-two from Manchester. The climate is bracing and sedative, the air dry but not irritating, fogs are very rare, and the atmosphere is light and pure. The temperature is variable, changes occur rapidly, while

the mean for the year is 54°. The sea-bathing is good, the shore sandy, the water clear and pure, and the bay so well sheltered that it is seldom too rough.

As a summer and autumnal residence it is useful in laryngeal, bronchial, and pulmonary affections; in tuberculosis; in dyspepsia with constipation and flatulence; in chronic rheumatism; in some forms of paralysis; and in nervous depression after long illness.

β. SCARBOROUGH.—Built on the slopes of a beautiful bay on the Yorkshire coast, this town is resorted to in summer for its sea-bathing. The season extends from June to October. It is suitable for nervous and hypochondriacal patients, for such as have been over-worked and need change of scene and amusement, and for convalescents requiring a bracing air.

A short distance from the town are two mineral wells,—the *North* or *chalybeate*, and the *South* or *saline* spring. There is not much difference, however, between their waters; those of both being aperient, alterative, and slightly tonic. Their temperature is about 49°; and they yield nitrogen gas, carbonate of iron, chloride of sodium, sulphate of magnesia (most abundant in the South spring), sulphate of lime, and bicarbonate of lime. They may perhaps be useful in habitual constipation, torpidity of the liver, and scrofulous complaints.

γ. FILEY has most of the advantages of Scarborough, with the additional one for the invalid of quiet and retirement. It has also a saline chalybeate spring.

δ. WHITBY.—The air of this sea-port town is bracing and pure, the sands are extensive and afford good bathing, while there is a chalybeate spring which is thought well of for its mild tonic properties. As at Filey, the season extends from the beginning of June until the end of September.

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440. *Ireland.*

α. KINGSTOWN.—This is one of the best frequented sea-bathing places in Ireland. Situated about seven miles south-east of Dublin, on the southern shore of the bay, the harbour is said to be one of the most splendid artificial ports in the United Kingdom.

The sharp and bracing air of Kingstown proves injurious, during the latter part of the winter and the early spring months, to patients with disease of the lungs.

β. HOLYWOOD.—A small watering-place much used by the residents of Belfast, from which city it is about five miles distant. The beach is sandy, and good for bathing.

γ. QUEENSTOWN (Cove).—A town which consists of a series of terraces, built on the southern acclivity of Cove island, in Cork harbour. It is well sheltered from northerly winds; is exposed to the full influence of the sun; and the winter climate is admirable, being mild and equable. The mean temperature for the year is 51·9°; that for the winter being 44·1, spring 50·1, summer 61·3, and autumn 52·0. The annual rain-fall is 33·25 inches; the average number of days on which there is wet being 131. The invalid should settle here about the end of October; and he will scarcely have a day during the ensuing four or five months when he will be unable to take exercise in the open air. Owing to the way in which the houses are built

at a variety of elevations, the exact locality chosen must depend upon the patient's malady and strength.

All diseases needing a sedative and slightly humid atmosphere may derive benefit at Queenstown. Laryngeal, bronchial, and pulmonary complaints are especially relieved by a winter residence here; and so also are dyspeptic, strumous, rheumatic, and cutaneous affections. It is admirably suited for delicate children; and for convalescents from hooping-cough, eruptive fevers &c. Functional disorders of the uterine system are often cured by it.—In the summer there is excellent sea-bathing.

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441. *Scotland.*

The climate of Scotland is remarkably equable throughout the year; the summer heat and winter cold being mitigated by the ocean winds. The mean temperature for the year is about 47°; that for the northern counties being higher than for the eastern. The prevailing winds are from a westerly quarter; blowing, for more than two-thirds of the year from between the south-west and north-west points. In spring and early summer cold east winds prevail. The atmosphere is moist, nearly 100 inches of rain falling annually in some of the mountainous parts; though along the southern shores of the Firth of Forth the amount is under 30, at Glasgow about 29, and at Musselburgh not more than 24 inches.

The air of EDINBURGH, though neither genial nor mild, is yet salubrious; and is said to be favourable to longevity, as well as to the development of the mental and physical powers. The city extends northwards to the shores of the Firth of Forth; Granton and the old fishing village of Newhaven being only separated from the town by a pleasant walk. The elevated situation of the city renders it exposed to violent winds; but the effect of these is favourable, at all events to the inhabitants of the Old Town, by driving away many impurities. As a place of education, for youths needing a bracing climate, it has great advantages.

The old city of ST. ANDREWS, situated on a rocky promontory some fifty feet above the level of the sea, has a wholesome genial climate. It should be avoided in the spring months, as it is then visited by a disagreeable chilly mist from the north-east; but from July until the end of October the air is pleasant and salubrious. Sufferers from rheumatism, or invalids with weak lungs had better not remain long in this city.

On the western coast there are several localities which seem to possess good winter climates for invalids. The island of BUTE, in the Firth of Clyde, has many advantages; the air being mild and equable, though rather humid. Its mean temperature for the year is 48·25°; that for winter being 39·62, spring 46·66, summer 58·06, and autumn 48·59. The annual rainfall is 38·62 inches; there being more or less wet on about 150 days. Snow rarely falls in the winter, and there is a freedom from fogs. It is protected from the east winds of spring; and there are great opportunities for outdoor exercise. The climate being rather sedative, invalids needing a strong bracing air must seek it elsewhere.

Hypochondriacs, sufferers from habitual constipation or sluggish action of the liver, and young men with a predisposition to phthisis, are often much benefited by a summer or autumnal walk through the HIGHLANDS; and certainly for the overworked literary or professional labourer nothing can be more invigorating than such a tour. "I verily believe that I should die," said Sir Walter Scott, "if I did not see the heather every year."

442. *The Channel Islands.*

All the Channel islands are remarkable for their beautiful and varied scenery, for the temptations they offer to the zoologist and botanist, the mildness and humidity of their climates, the absence of great heat in summer and great cold in winter, and for the equability and duration of autumn. The violent east, north-east, and north winds which prevail in the spring, are exceedingly disagreeable and injurious.

The climate of the Channel Islands is generally favourable to chronic disease, to asthma, affections of the urinary organs, and to convalescents from acute inflammations of the organs of respiration. The old and the young also are benefited by it. It is unfavourable in chronic rheumatism, hepatic disorders, structural diseases of the uterus or ovaries, nervous dyspepsia, hypochondriasis, and in cases where there is a tendency to hæmorrhage. Pulmonary consumption appears to be as common and fatal among the inhabitants as in most other localities.—The most favourable time for a stay in either of the group is from August until the beginning of February. In some instances, a change, for a time, from one island to another, is productive of good.

These islands may be reached by steamers from Southampton or Weymouth in less than twelve hours. Invalids, especially ladies and children, should choose their day of sailing so as to avoid a rough passage across the English Channel; and so that they may not have to land in small boats. The packets can generally enter the harbour of St. Peter's Port in Guernsey, and that of St. Helier's in Jersey, except near low water on a receding tide.

GUERNSEY, the most westerly and exposed of the islands, has an average annual temperature of 51·50°; that for winter being 44·2, spring 47·7, summer 59·9, and autumn 53·8. Sea fogs are rare. The mean annual rain-fall is rather less than 35 inches, falling on 164 days, and more often in night than day. The walks are too hilly for most invalids.

JERSEY is the largest of the group of islands, and the most important; being about twelve miles long, with an average breadth of five miles. The surface of hill and dale is well wooded; the coast is rocky and precipitous; and it is exposed to the wind from every quarter. The mean yearly temperature is the same as for Guernsey; during three quarters of the year the average being higher, while it is lower in the winter. Nevertheless, the latter is mild, frost and snow being very rare. The daily range of the thermometer is small, but it is greater than in Guernsey. St. Helier's contains nearly half the population of the island; but it is more foggy and humid, and therefore less suited for invalids, than St. Aubin's which lies three miles to the south-west of it. The sands are good for summer bathing.

The air of ALDERNEY and SARK is usually said to be drier and more bracing than that of Guernsey; while that of the latter is less relaxing than that of Jersey.

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443. *South of France.*

a. PAU.—This, the chief town of the department of the Basses-Pyrénées, is about 125 miles south of Bordeaux and 56 miles east of Bayonne. It may be reached from London in 48 hours; and the season lasts from the beginning of November until the end of May. The mean annual temperature is about 56°. The average for September, October, and November is 56·4;

that for December, January, and February 42·8; while for March, April, and May it is 54·0. The annual rainfall is about 43 inches, the rainy days numbering 119. Owing to the gravelly soil any quantity of moisture is readily absorbed. DR. PLAYFAIR, quoted by SIR JAMES CLARK, sums up the nature of the climate, thus:—"Calmness, moderate cold, bright sunshine of considerable power, a dry state of atmosphere and of the soil, and rains of short duration. Against these must be placed,—changeableness, the fine weather being as short-lived as the bad, rapid variations of temperature, within moderate limits. In autumn and spring there are heavy rains." The air in December, January, and February is dry, and out of the sun, cold; but even in these months the rays of the latter are so powerful that the pedestrian ought to protect his head with an umbrella. There are very few days on which the invalid will be unable to take exercise between 12 and 3 o'clock.

Pau is not influenced by the west-north-west wind, the *Circius* of the ancients; nor by the north wind or *Bise* which produces a biting cold; nor by the north-west wind or *Mistral:* in fact the climate is calm and soothing, high winds being rare. It is useful in cases with a scrofulous taint, in preventing generation of tubercle, and in checking softening of tubercle when formed. Indeed, as DR. TAYLOR states, the predisposition to disease favourably influenced by this town, may be summed up in one general principle:—viz. wherever it depends upon increased nervous and arterial action, permanently produced, either by temperament or by some cause leading to more active disease.

The climate is sedative, modifying nervous and vascular irritation; and therefore beneficial in irritations of the mucous membranes of air-passages or alimentary canal.—It is unsuitable where the powers of life are declining; in chronic catarrh or bronchitis of old people, with loss of tone and excessive expectoration; in chronic rheumatism or gout, with debility of digestive organs; in tendency to apoplexy from passive congestion; in chlorosis; and in disorders attended with congestion of venous system and diminished nervous energy. In all these cases the climate of Nice is the remedy. In short, Pau is to be chosen when there is "functional derangement of a tonic irritable type, which paves the way to organic mischief." Acting on persons in health the air lowers the tone; makes the sanguine, phlegmatic; and the choleric, melancholic.

β. BIARRITZ.—A fashionable sea-bathing village on the shores of the Bay of Biscay, some 5 miles south-west of Bayonne, and 65 miles from Pau. The roads between the two places are excellent, and communication by diligence or omnibus very easy. It can be reached from London in about 48 hours. The air is warm; the temperature of the sea high; and there is always a soft invigorating sea-breeze. When benefit has been derived from a winter at Pau, it is often advisable for the patient to go to Biarritz for the summer; returning to Pau for a second winter. The sandy gently-shelving beach is well adapted for bathing, which is no slight luxury in water at a temperature of 75° F.

According to DR. HENRY BENNET, the climate not only renders Biarritz a favourite summer and autumn watering-place, but puts it among the eligible winter stations of the south. It is cheaper also in winter than summer, being then almost deserted by fashionable visitors. In cases of severe disease it is not equal to Pau, Ajaccio, or Mentone, the winter breezes from the Bay of Biscay being often very violent.

γ. MONTPELLIER.—The reputation which this city formerly enjoyed as a winter residence for consumptive patients has entirely gone. The climate

is dry, irritating, and changeable; and though the heat of the sun is great, yet the winter winds are cold and unbearable. Mean temperature of the year 59·5°; winter 44·2°, and summer 76°. Phthisis is very prevalent amongst the native population. Invalids with relaxed mucous membranes and copious secretions, sometimes find advantage from spending the autumn here.

δ. MARSEILLES.—This city, second only in importance to Paris, offers no residence for the invalid. Pulmonary consumption annually destroys a large number of young women and men. Catarrhs, pleurisy, and pneumonia are common; and so are cutaneous affections, diseases of the generative organs, and cancer.

Mean annual temperature 58·32°; winter 45·22, spring 55·91, summer 72·93, and autumn 59·21. Although these figures are high, yet the winter is sharp and cold, the winds being high and prevalent—especially the mistral (north-west). In spring, the variations in temperature are sudden and dangerous, and there is much rain. During summer the heat and dust and insects are intolerable.

ε. HYÈRES.—This little town is agreeably situated, about two miles from the shores of the Mediterranean, and an hour and a half's drive from Toulon. The climate is clear, pure, dry, and tolerably mild. The greater portion of the town is sheltered from north and east winds; while it is open to the south, benefiting by the influence of the sun and sea-breezes. But it is exposed to the mistral, as there are no protecting hills on the north-west; and this blows frequently during the first three months of the year. It has been thought one of the best localities in the South of France for the winter abode of invalids with pulmonary disease; as there is much fine weather, without great variations in temperature. The mornings and evenings, however, are cold; and hence, remembering too the prevalent winds, it should not be recommended. In summer the heat and dust prove very annoying. The best season is during April and May, or from the beginning of September to the end of November.

ζ. CANNES.—An agreeable sea-port, on the shore of a small bay, well protected from cold winds. It has a climate more moist and sedative than Nice, and less so than Pau. The lower parts of the town should be avoided, as the drainage is bad. The over-worked man of business, seeking fresh air, genial sunshine, and a locality possessing a combination of fine sea and mountainous scenery, may advantageously winter here. Cases of nervous dyspepsia are particularly benefited, and so are some forms of phthisis.

In the summer Cannes is resorted to for sea-bathing, the extensive sands being well adapted for this purpose. Sand baths are sometimes used for the relief of rheumatic and paralytic affections of the limbs; the patients being immersed up to the chest in sand warmed by the sun. Like mud baths they may serve to amuse the invalid, while he is breathing pure air and living by rule.

η. NICE.—The reputation long enjoyed by Nice for salubrity, has been found to have been greatly over-rated. Protected towards the interior by the Maritime Alps and the Estrelles, cooled by the breezes of the Mediterranean, and with a mild dry climate, it would seem to be a favourable locality for phthisical patients. But notwithstanding these advantages the valley is exposed, during winter and spring, to cold irritating winds from the east and north-east; and the Nisards then suffer much from catarrh, ophthalmia, skin eruptions, pneumonia, and irritable gastric

affections.—The mean temperature for the year is 59·01°; for winter 46·33, spring 55·92, summer 71·83, and autumn 61·52. The variations between the warmth of night and day, of sun and shade, are remarkable. The annual rainfall is about 26 inches; most falling in October and November, leaving the other winter and spring months comparatively dry.

M. CARRIÈRE has compared the valley in which Nice is situated to an open fan, the arch of which is formed by the mountains, and the point by the shore, where the Var discharges itself into the sea. But the mountainous semicircle is indented in parts, and down these interruptions the winds blow from certain points, and injuriously affect consumptives.—The mistral is "the scourge of the Mediterranean shores of France and Sardinia." It may continue one, three, seven or more days at a time; in autumn and winter it blows frequently, and hence it is absurd for invalids requiring a mild temperature and calm atmosphere to winter at Nice. The south-east wind, or sirocco, so injurious on the continent of Italy, becomes changed into a mild beneficial breeze during its transit across the Mediterranean to Nice; it modifies winter cold, and summer heat and dryness. *La Croix de Marbre*, the suburb of Nice inhabited by the English, is most unfavourable for pulmonary invalids: it is exposed to the libeccio (a relaxing south-east wind), and to the blighting influence of the mistral. The invalid if he will go to Nice should live at the foot of the heights, in one of the shady valleys open to the south. The brilliant sun entices him out of doors, and then the blighting piercing wind attacks him; no flannel will keep out the cold. The bills of mortality of the Nisands give one-seventh of the deaths as from phthisis. That "Nice is one of the last places to which a foreigner labouring under tubercular phthisis should resort," is the opinion of DR. BURGESS. It is also unfavourable for nervous and susceptible invalids. The air may sometimes be beneficial in chronic rheumatism and gout; in uterine derangements connected with a relaxed and torpid state of the system; for delicate children of a strumous habit; and for invalids returning from tropical climates. The stay should extend from the middle of October until the end of April. The Author has been told that there are well-conducted Pensions both at Nice and Cannes which are preferable to the hotels as being more quiet and home-like.

θ. VILLA FRANCA.—This little town, a short distance from Nice, has a climate somewhat warmer and drier, and is less exposed to the north and north-west winds. The vegetation is luxuriant and early.

ι. MENTONE.—Lately a small Italian town, but annexed to France in 1860, Mentone offers one of the most sheltered stations in the south of Europe. It is situated on the northern shore of the Mediterranean, at the foot of the Maritime Alps, and twelve or thirteen miles to the east of Nice on the road to Genoa. The bay, in the centre of which the town is placed, is completely protected from the north, north-west or mistral, and north-east winds by the mountains; while owing to the absence of fogs, the paucity of rain, and the great power of the sun, the air is very pleasant during the winter months. The mean temperature is a little higher than that of Nice.

From the beginning of November until the end of April the climate is genial and bracing. The invalid must not remain during the summer. A residence here is very useful in phthisis, when the disease has not passed beyond the first stage; and even when it has reached the second or third, provided the tubercular deposit be limited to a part of one lung. It is also beneficial in chronic cases of consumption; chronic bronchitis; and chronic gout and rheumatism. Strumous children improve remarkably.

Some who visit Mentone prefer the eastern bay, some the western; but whichever be chosen, care must be taken to select rooms having a south aspect, and with the bedroom not on the ground floor.—For the sake of those who are not over-burdened with wealth, it may be as well to remember that Nice and Mentone are both extravagant places, while *San Remo* is much cheaper, and the air is just as good during the winter.

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444. *Corsica.*

This island, one of the most important in the Mediterranean, has shores mostly low, while the centre is mountainous. Dr. Henry Bennet has recommended Ajaccio, on the west coast, as an admirable winter station for invalids. He describes it as a clean and cheerful little French town, with quiet sunny streets; and which, not being cramped in by walls, has spread itself out on the north-west side of a beautiful bay directed due south. This bay is protected from all winds but the south-west, by its hemicircle of grand mountains in the distance. The climate is as warm as that of Nice (from which it is distant some eight or nine hours' sail by the mail steamer), and it is unexceptionally healthy.—Napoleon Bonaparte was born here 15 August 1769.

Ajaccio is the only town of Corsica that appears thoroughly eligible as a winter residence. The climate of Bastia is warm and agreeable; but the town has a small tideless port, and is exposed both to south-east and north-east winds. Dr. Manfredi, the surgeon of the civil hospital at Bastia, states that nearly all surgical wounds heal at once by first intention, while purulent absorption is almost unknown.—Corsica should be avoided in the autumn, on account of the malaria which then prevails in many parts.

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445. *Spain and Portugal.*

α. Alicante.—Lying along the shore of a bright open bay in the Mediterranean, is this healthy town. It is sheltered on the north and north-west sides by a limestone rock some 700 feet high, is free from malaria, and has a mild dry air with comparative immunity from high winds. The mean annual temperature is 63·7°, that for winter being 52·1. The rain-fall is very moderate. In summer the calm open sea, and sandy beach, afford good bathing. In winter, whatever may be the temperature of the morning air, the middle and after-part of the day will generally be mild and calm.

As a winter residence it may be recommended to such as need a dry and somewhat stimulating climate. It has been found useful in chronic bronchitis, with excessive secretion; as well as in atonic dyspepsia.

β. Barcelona.—This, the chief city of Catalonia and the second in importance of Spain, has a mild winter air. It is open to the sea on the south and south-west, and is partially protected from westerly and northerly winds by the hills at the back. The mean annual temperature is 63·14°, that of winter being 50·18; while there is rain on some 69 days in the year. Invalids requiring a rather stimulating and dry climate may reside here, but it cannot be strongly recommended. April and May are the most uncertain months.

γ. CADIZ.—The semi-insular position of this commercial town, on the shores of the Atlantic, would seem to point it out as a suitable winter residence for those requiring sea-air. The climate is soft, humid, and relaxing; the winters are mild and the summer temperate; the weather is showery, especially in winter and autumn, but the soil being porous it soon dries; and there are few days during winter on which exercise cannot be taken in the open air. The mean annual temperature is 62·75°; that for winter being 52·80, though very often at this season the thermometer, in the shade, will stand at above 60. Rain falls on about 100 days in the year; but it generally comes in showers, with intervals of sunshine.

This town may be recommended for some irritable affections of the chest, and in certain cases of heart disease. Women with any tendency to ovarian or uterine disorders should avoid Cadiz. The stranger will find it best to reside in the central portion of the town,—as on the sunny side of the square of General Mina or San Antonio, or in one of the lesser plazas. The wall (Muralla del Mar) which nearly surrounds the town has on its summit an agreeable walk.

δ. MADRID.—The capital of Spain, situated nearly in the centre of the Peninsula, is perhaps an attractive city for the tourist; but the irritating and stimulating character of the climate renders it an unfavourable one for the English invalid. The mean annual temperature is 57°; but the range is so great that DR. FRANCIS has observed a thermometer pointing to below freezing a little after sunrise, stand at 106 at 3 o'clock P.M.—The winters are raw and long, with hard frosts and piercing cold winds: in summer the heat is irritating and oppressive, so that even the Spaniards cannot stand it.—"The subtle air," says FORD, in his Handbook, "which will not extinguish a candle, puts out a man's life. * * * * * No wonder, according to Salas, that even the healthy of those born there live on physic."

ε. MALAGA.—DR. FRANCIS speaks very highly of *Malaga*, which, indeed, seems to be the El Dorado of cities; for he asserts that there is no place in Spain, nor in the whole of Europe, as far as our present information goes, that possesses a climate at once so mild and equable, with so little variation from day to day. This seaport city is situated on a bay of the Mediterranean, 65 miles east-north-east from Gibraltar. The mean annual temperature is 66·11°, that of winter being 54·41; the heat of January corresponding with that of May in London. The air is neither too moist, nor too dry; and a lofty mountain range forms a protecting background to the winter winds. The annual rain-fall is said to be only 16½ inches.

The longevity of the people is remarkable: persons aged from 80 to 90 being seen going about the streets in full possession of all their faculties. Though the ratio of mortality is 1 in 37, yet it must be remembered that this is larger than it would otherwise be; not only from the excessive mortality in early life (42·3 per cent. during the first five years) owing to the mothers not nursing their infants, but likewise from the presence in the town of a large garrison and a crowded convict establishment. The principal drawback seems to be the terral, a cold harsh wind from the north-west, which occasionally blows during the winter with great force. It causes restlessness, and oppression at the chest, where there is any pulmonary affection. The air is also unfavourable in cases of disease of the nervous centres.

The invalid who requires a warm, dry, and gently tonic climate, with constant sunshine, may well visit Malaga for the winter. A residence here is especially useful when phthisis seems to threaten, or even when it

is present in an early stage. He should live in the newer part of the town, where the soil is sandy, and through the centre of which runs the Alameda, a fine broad promenade bordered by cheerful well-ventilated houses. The Spanish custom of taking a siesta in the middle of the day ought to be adopted. There is regular steam communication with Liverpool, the voyage lasting seven or eight days.

ζ. VALENCIA.—This city, built upon the great plain of Valencia, is about three miles from the sea. It may be reached in seven days from England, by way of Marseilles.—The town is very clean, the climate unusually dry, though the water evaporated by the system of irrigation pursued impregnates the air with moisture; there are no cold fogs; the wind is soft and mild during winter, in summer refreshingly cool; and the mean annual temperature is 63·5°, that of winter being 49·7. The cold is often appreciable in early morning and after sunset during winter, but it is warm by mid-day. The spring-time is the best—from the middle of February till the beginning of May: autumn is to be avoided owing to the miasmata from the rice-plantations.—Consumption is not uncommon among the poor; but then in no part of Spain does the labourer work harder, or subsist on a more meagre diet.

Useful for the over-worked man of business, semi-invalids and hypochondriacs, individuals with impaired health but no organic disease, gout and rheumatism, calculous affections, albuminuria, and nervous dyspepsia. There are several towns within easy reach of Valencia where the invalid may go for a short stay,—such as *Alcira*, *Carcajente*, *Jativa*, *San Felipe* &c.

η. SEVILLE.—The famous capital of Andalucia, and the city of Figaro, possesses a soft and tonic climate. It may be visited by the hypochondriac, by convalescents from lingering disease &c.; or the invalid who has wintered in Malaga might advantageously stay here during May. The best part of the year is from November to March. There is considerable rain in October, November, and April. Occasionally during the summer the sultry and irritating levante or east wind prevails, giving rise to fever, ophthalmia, mental irritability, and neuralgic affections.

θ. ARANJUEZ.—Situated 24 miles south of Madrid, on the left bank of the Tagus. The season consists of April and May, during which months the climate is soft and most agreeable. The water of the town contains a little sulphate of soda and hence is sometimes aperient if taken largely.

ι. LISBON.—The capital of Portugal has a dry and bracing climate; though the changes from sunshine to rain, from heat to cold are sudden and remarkable. Hence it is not to be recommended for pulmonary invalids; while, moreover, phthisis is very prevalent among the inhabitants.

The mean annual temperature is about 62·00°; that for winter being 52·52, spring 59·66, summer 70·94, and autumn 62·48. The annual rainfall is 23 inches, most wet days occurring in winter. The predominating winds are those from north-east to south-east, and to them is due the cold of winter.

DR. FRANCIS says that the best situation for an invalid who wishes to pass the winter in Lisbon, is the upper part of the Val de Pereiro; a continuation of the valley in which the new part of the town and the public gardens lie. "Here, upon the southern slope of the hill, are a few villas in the midst of orange gardens, which are well-sheltered, and afford choice views over the town and river. Those who prefer a country residence, may select the neighbourhood of *Bemfica*, a village on the Cintra road, about a

league from Lisbon. This place is in high reputation, among the Portuguese physicians, for the purity of the air, and it is here they send their convalescents."

κ. CINTRA.—A summer residence of the court and wealthy inhabitants of Lisbon, from which it is only sixteen miles distant. Frequent breezes, a humid soil, and an abundance of vegetation render the summer air cool and healthy. The winters are wet and cheerless.

446. *Gibraltar.*

This strongly fortified portion of the British possessions, occupies a mountainous promontory near the southern extremity of Spain, at the entrance of the Mediterranean. The town is built on the western aspect of the rock. It is unsuitable as a residence for invalids. For though the average winter temperature is 57·93°, yet the prevalence of the south-east wind—the levante—renders the locality cold, raw, and very unpleasant. Snow and ice are very rare, but there is considerable rain. The annual rainfall is 43 inches.

447. *Italy.*

α. LAGO MAGGIORE.—The largest of the lakes of Northern Italy. Along its shores are small towns resorted to by English invalids in summer. *Baveno*, *Arona*, and *Sesto* are the most frequented. But the climate though clear and pure is often marred by the violent thunder-storms which prevail in summer; there are heavy dews at night; while the neighbouring glaciers make it cold when the wind blows from that quarter. The air is injurious to phthisical invalids, but useful in general debility, in dyspepsia, and for such as need a cool tonic atmosphere.

β. LAKE OF COMO.—Situated to the north-east of Milan, from which it is not far distant.—The air is genial and mild, the temperature equable, and the heat not oppressive owing to the alternate play of the tivano or north wind during the night, and the breva or south wind in the day.—For ordinary invalids in summer the best situations on the lake are *Balbianino*, *Torno*, and *Bellagio*; but for the consumptive *Varena* is more suitable. *Cadenabbia* and *Tremezzine*, on the shore near the middle of the lake, are very beautiful spots; while according to DR. BURGESS, *Pliniana*, the most noted spot along these classic shores, the supposed residence of Pliny, will not yield precedence to either in climate or situation. The cold in the winter is great, especially at the northern extremity of the lake.—No part of Italy perhaps is so suitable for the consumptive in summer, as the Lake of Como. That dreaded disease pellagra, a kind of leprosy, is not uncommonly seen here. From one-third to a fourth of the lunatics in the Lombardy Asylum are suffering from it, for it induces insanity; while many cases of it, in early stages, are to be found in the hospitals.

γ. MILAN.—This city, the capital of the Lombardo-Venetian kingdom until 1859 when it was made over to Sardinia, is situated in a fertile plain between the Olona and Saveso rivers, at an elevation of 394 feet above the Adriatic. It is indifferently sheltered from the various winds, so that the climate is cold; snow and rain are frequent during the winter; while the sudden transitions from humidity to a dry harsh air, render it an unfavourable locality for any but the strong. It is frequented by consump-

tives going to, or returning from the South of Italy; but the shorter their stay, the better. In 1831, official returns showed that amongst the Milanese alone, 20,000 individuals were attacked by pellagra.

δ. BRESCIA, PAVIA, VERONA, AND MANTUA.—The principal towns of Lombardy, are all particularly unsuitable for invalids. Agues, fevers, and inflammations are very common. The cold in winter is intense; the atmosphere is saturated with moisture; there are dense clouds and fogs; there are large quantities of rain, in the form of a fine continuous drizzle; and cold winds are very prevalent, especially the north-east.

ε. VENICE.—This city, the Queen of the Adriatic of the poets, is built on piles in the midst of a lagoon or large marsh, two miles from the mainland of the Continent. It would seem to be slowly crumbling to decay. The climate is mild and equable; the air being impregnated with emanations of bromine and iodine. Consumption is prevalent among the inhabitants. Invalids are not attracted to Venice by the climate, however, but by its historical associations, and many sickly persons are to be found on the favourite promenade—the Piazza of St. Mark. The mean temperature of winter is about 39° F., of spring 54, summer 73, and autumn 55. Drizzling rain sometimes falls for days together. The result of seven years' observation gave a mean of $5\frac{1}{2}$ days of snow in winter.—In Venice the dolce far niente practice is fully carried out; the climate being favourable to indolence and voluptuous ease. Contrary to what might be expected ague is unknown. The tranquillity which prevails over the city is not unfavourable. As the climate is sedative and lowering, it is not fit for those who are depressed by disease; and except in the early stage it is injurious to phthisical patients. It is suitable for such as have a tendency to inflammation, hæmoptysis &c. Invalids may remain here from the close of autumn to the end of spring; but it is most agreeable in the latter season.

ζ. GENOA.—This town, at the head of the Gulf of Genoa, is one of the last places for a consumptive to pass any time at. The vicissitudes of temperature are rapid and extensive; there are sudden gusts of wind; while the biting coldness of the tramontana or north wind, alternating with the warmth and humidity of the sirocco or south-east, the two prevailing winds of Genoa, proves very trying. The best time for a visit to Genoa (not by a consumptive) is about the autumn or the beginning of summer. Pneumonia, hæmoptysis, consumption, and catarrh are amongst the most frequent diseases of the inhabitants.

η. FLORENCE.—Situated on the Arno, a few hours' ride from Pisa, this city may be an agreeable residence for the very strong. But certainly in no part of England could a more unfavourable climate be found for consumptives. It is built in a deep ravine, almost surrounded by the Apennines, and intersected by a squalid river. It is one of the stations on the western zone of Italy where it rains the most. Extreme cold in winter, great heat in summer, chilling northerly winds, occasional fogs, violent atmospheric and thermal variations,—these are its chief peculiarities in a sanitary point of view. The nervous excitability of Florentines is explained by the topography of the city. As the birthplace of Dante, Leonardo da Vinci, Machiavelli &c., as well as for its churches, palaces, and magnificent works of art, it offers many attractions to the tourist.

θ. PISA.—The dismal aspect of this neglected city surpasses that of any other in Italy. The dreary solitude of the streets causes gloom and melancholy; while everything seems stricken with decay or death. It is often

recommended for consumptive invalids; but the climate is mainly indebted to tradition—being mild, humid, and relaxing. The sky is dull and often murky. Perhaps the high walls around Pisa assist in protecting portions of it from the cold winds, especially the Lung' Arno, or that quarter where the invalids reside. The mean temperature of winter is about 45°, spring 59, summer 74, and autumn 63. The winter is colder than at Rome. The air is moist from the great prevalence of southerly and Mediterranean winds. The climate is very depressing—causing general lassitude while it enervates the faculties. Many foreign invalids die within a few weeks of their arrival. Hæmoptysis frequently sets in where there is any tendency to phthisis.

c. ROME.—Situated on marshy ground at the foot of a range of low hills, about fourteen miles from the sea, and divided by the Tiber into two unequal portions, Rome has not so much to recommend it to those really in search of health as many other places. The climate is mild, soft, and sedative; but malarious effluvia, in a greater or less degree, are never absent. The best time in the year is October and the first ten days of November. The mean annual temperature is 60·49°; that of winter being 46·75, spring 58·25, summer 74·24, and autumn 62·75. Owing to its exposure to cold winds, the variations in temperature are great and sudden. Northerly winds are common in the morning and evening, though in the middle of the day the wind blows from the south. The tramontana is cold and searching; but the prevalent wind is the sirocco from the south-east, which is hot, sometimes dry, and sometimes so moist as to render the streets slippery and damp. Under its influence the tissues relax, appetite fails, bowels become torpid, spirits flag, and the weakly get oppressed with lassitude and headache. If an invalid will go to Rome in the winter, let him spend as much time as he can in St. Peter's. No other public building can compare with this church as regards possessing a dry equable temperature all the year round. The mild genial air in its interior is so prized, that the sickly meet and promenade in St. Peter's when the weather will not permit of exercise in the open air.

DR. BURGESS entertains a very unfavourable opinion of the sanitary value of this city. And he points out that the popular feeling in favour of a mild and relaxing climate for consumption is altogether wrong, being based upon erroneous data, if not upon mere tradition. A cold climate, such as that of Norway or of Canada, and still air, are evidently more rational indications, if the formation of tubercle is the result of a relaxed state of the vital functions, involving impaired digestion, depraved nutrition, and degeneration of the blood. Nothing is more calculated to derange the digestive organs than the sedative influence of a malarious atmosphere. The mild climate allays bronchial irritation, at the expense of the general health and of disordered nutrition.

The most fitting localities in the city for the invalid with any bronchial irritation, chronic rheumatism &c. are the north and west sides of the Piazza di Spagna, as having a southern exposure: or he may choose one of the streets running east and west from, and near to, the Piazza,—the Strada de' Condotti, Strada della Croce, Strada Frattina &c., the north sides of which gain the southern sun, and all of which are on sheltered ground. The south side of the Strada del Corso should be avoided, as the Tiber frequently overflows in winter, generating low fever &c. The Piazza del Popolo is also subject to damp fogs. In most cases the second and third floors of a house are preferable to the first; since, owing to the narrowness of the streets, they are more exposed to the sun. The higher and

more exposed ground of the Monte Pincio, Via Sistina, Piazza Barberina &c. is suitable for those with healthy chests, and who can bear a high wind.—The stay may extend from October till the end of May.

κ. Naples.—The climate somewhat resembles that of Nice, but is more variable and humid. Situated on the northern shore of the Bay of Naples, on the slopes of a range of hills, near the foot of Vesuvius, this city seems to offer all that is charming to the man in health, and everything that is pernicious to the invalid. The mean annual temperature is 60·26°; winter being 47·65, spring 57·56, summer 74·38, and autumn 61·46. Besides other winds, it is exposed to the sirocco or south-east, which is enervating to both body and mind; as well as to the mistral or north-west, which brings raw piercing cold and damp. Catarrh, pneumonia, phthisis, rheumatism, ophthalmia, uterine disease, and cutaneous affections are common amongst the inhabitants. Eustace says, and apparently with reason,—"If a man be tired of the slow lingering process of consumption, let him repair to Naples; and the dénouement will be much more rapid." Indeed, so fatal is the climate to invalids with pulmonary disease, especially during the winter, that the proverb,—"Vedi Napoli e po' mori," may be interpreted in a more literal sense than that intended.

λ. Baiæ and Pozzuoli.—Situated in the vicinity of Naples, these towns are recommended by M. Carrière as winter residences for invalids already sojourning in the Neapolitan territory. The air is humid and warm, and little disturbed by violent winds. But the undrained swamps in the neighbourhood of Baiæ, and the fatality of phthisis at Pozzuoli ought to deter any invalid from leaving England for these stations of classic renown, however anxious he might be to escape to them from Naples.

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448. *The Ionian Islands.*

This group of islands in the Mediterranean, off the west coast of Greece and Epirus, ceded to the Greeks by Great Britain in 1863, consists of *Corfu*, *Cephalonia*, *Zante*, *Santa Maura*, *Ithaca*, with many smaller islands. Their surfaces are mountainous and rugged, but in some of the larger islands are fertile plains. They vary but little in climate; the winters being stormy and wet with northerly winds, the springs warm, and the summers dry and hot. Intermittent and remittent fevers, dysentery and diarrhœa, phthisis and pneumonia are prevalent. As a tour for the hypochondriac a visit to these islands may be recommended.

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449. *Malta.*

Of an area not much exceeding that of the Isle of Wight, this island forms the chief station of the British fleet in the Mediterranean, and is daily called at by ships of all nations. The atmosphere is clear and bright, the annual rainfall about 15 inches, the air mild and bracing in winter, and the temperature equable with a yearly average of about 64°. Heavy gales of wind are not very frequent, though the atmosphere is never entirely calm. The gregale or north-east wind is cold in winter, and often does damage in the harbour of Valetta; while the sirocco or south-east prevails especially in August and September, is hot and humid, and produces lassitude with debility.

The Revd. JAMES SHERMAN, who suffered from consumption, writing from Malta on the 16th January 1861, said,—"A blazing sun shoots his rays into my room, and a delicious breeze makes it sufficiently cool. I look out on a sort of Regent Square—people traversing up and down in crowds—a beautiful garden opposite my window, with hundreds of oranges on the trees—priests, beggars, and guides jostling one another in every direction—a side view of the ocean—a deep blue sky, without a cloud—and at night the stars looking so large, near, and brilliant, that I can scarcely believe I am only 4½ days from the frost and snow of England. The climate seems most delicious, and well adapted to invalids."

The weather is most agreeable from the middle of October until the end of January. Asthma connected with chronic bronchitis, atonic dyspepsia, strumous glandular swellings, and deranged health from over-work,—these are the cases which are most likely to be benefited by a stay in the cheerful bustling capital of Valetta.

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450. *Egypt.*

One of the earliest civilized localities of the world, this country has long been divided into the provinces of *Saïd* or *Upper Egypt*, *Vostani* or *Middle Egypt*, and *Bahari* or *Lower Egypt*. Upper and Middle Egypt are more healthy than the Delta. There are only two seasons in Egypt,—the temperate from October to March, and the hot from March to October. At *Cairo*, the capital, the climate is healthy, little variable, and dry; the mean temperature of the year being 72·2°, while that of winter is 58·5, and of summer 85·1. Taking the whole of Egypt the mean temperature in December, January, February, and March may be said to be about the same as that of this country in June, July, and August.

The invalid should leave England rather early in October, so choosing his time of sailing by one of the Peninsular and Oriental Company's steamers as to be able to see the best spots on the south coasts of Spain and Portugal, Gibraltar, and Malta. This arrangement will usually be preferable to that of beginning the voyage at Marseilles. From Malta to Alexandria occupies only a few days: the traveller ought to arrive at the latter by the middle of November. Leaving this port as soon as "the Sights" are visited, he proceeds to Cairo by railway; whence he begins to ascend the Nile, so as to reach Thebes by the beginning of December. The climate of Thebes is all that the valetudinarian can desire; and hence he may either remain there, or proceed southerly in the direction of Nubia. But, however far his trip may extend, he should be back in Cairo by the end of March; whence he may arrange his home journey, by way of Greece and Constantinople, so as to be in England by about the latter part of June.

The necessity for travelling by, and living in boats after leaving Cairo, has of course certain disadvantages, and is somewhat expensive. But with a dry balmy atmosphere, and a sky bright and cloudless, the invalid may find much that is most agreeable and exhilarating in the even progress of a Nile boat—a dahabeëh.—The two chief annoyances to the traveller in Egypt are the dust, and "Baksheesh." The former may be mitigated by suitable clothing,—mohair dresses for ladies, and flannel shirts with tweed suits for gentlemen; while the latter must be avoided by not exhibiting too much liberality, and by bargaining beforehand with dragomen, guides, coachmen, boatmen &c. The climate may especially be recommended in the early stages of tuberculosis, in chronic bronchitis, some forms of humoral asthma, gout and rheumatism, renal diseases, dyspepsia, and affections of the nervous system.

451. *Algiers.*

The city of Algiers, the capital of an extensive country of northern Africa bordering on the Mediterranean, has been much resorted to by invalids. It can be reached easily in seven or eight days from London; by way of Folkestone, Paris, Lyons, Marseilles, and thence by steamer in forty-eight hours. About the end of October is the best time for the invalid's arrival on the coast of Africa; the great heat having then usually ceased, and the first rains having refreshed the lands, so that the country has the appearance of spring.

Speaking of this city, Dr. Mitchell says that with difficulty, if at all, will the European traveller find a spot on earth where natural beauties so combine with those of man's creation to please and interest him. One of the long sides of the oblong of which the "Place du Gouvernement" is formed, is open to the sea; commanding a view of the bay, the harbour, the peaks of the distant Atlas, and the verdure of the Sahel slopes. The "Place" itself is filled with a strange mixture of all races; the Arab, the Moor, the turbaned Jew of Africa, the Maltese fisherman, the Spanish fruitseller, the veiled women of Moslem, the picturesque Jewess, the pretty Spaniard, &c. &c. The invalid will find objects of interest without seeking them, and will be gratified and amused merely by wandering in the open air.—The mean annual temperature is about 66·50° Fahr. The mean temperature for each season is—winter 56·91; spring, 67·60; summer, 77·73; and autumn, 63·80. The rainfall is 36 inches: rainy days, 96. Winter fogs are rare. Snow has fallen once in seven years. Compared with other points on the Mediterranean, Algiers has a warmer and a less varying climate than Marseilles, Nice, Genoa, and Naples; while it more nearly approaches, but is still superior to Malta, Corfu, and Gibraltar.—Dr. Mitchell quotes the opinions of M. Odrultz, which are to the following effect:—1st, The climate of Algiers is opposed to the generation as well as to the evolution of tubercle in the lungs: 2nd, This morbid production is observed but very exceptionally among the indigenous population: 3rd, Europeans who do not bring the germ of the disease to Algiers, almost never become phthisical: 4th, Those who do bring not only a predisposition, but actually crude tubercle, in greater or less quantity, in the lung, are often cured; or, in the worst cases, the progress is extremely slow: 5th, When the tubercle has softened, the climate is no longer favourable, but the reverse.

The climate is also beneficial in laryngeal and bronchial affections; in chronic heart disease; in gout and rheumatism; and in renal disorders.—Nervous complaints, paralysis, epilepsy, and convulsions are aggravated by it. Cerebral congestions, and a plethoric condition of the uterine organs, appear to be common in Algiers.

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452. *The Azores—Madeira—Canaries.*

α. The Azores or Western Isles.—This group of nine islands belonging to Portugal, lies in the midst of the Atlantic Ocean. They are of volcanic origin, all possess similar features, and have mild equable climates. The atmosphere is saturated with moisture. A winter trip to the Azores may be recommended where a soothing relaxing climate is needed. Hence it is beneficial in inflammatory dyspepsia, bronchial irritation with scanty secretion, and in the premonitory stage of consumption. Sir James Clark thinks that a change from the Azores to Madeira, and

from thence to Teneriffe, would in many cases prove more beneficial than a residence during the whole winter in any one of these islands.

β. MADEIRA.—Of the group of Madeira Isles, the largest and most important is Madeira, about 120 miles in circumference. Funchal, its capital, has long enjoyed great reputation as a winter residence for the phthisical. The invalid who leaves this country about the middle of October, can reach Madeira in from ten to fourteen days; where he will find himself in a tropical climate, with an unclouded sky, a glowing sun, a deep blue sea, a luxuriant and varied foliage, and beautiful hills which were covered with flourishing vineyards. Since the autumn of 1852, however, when the vine disease suddenly broke out, there has been a sad change; the plants still being destroyed by the deadly fungus.—The return voyage should be undertaken about the beginning of June.

The climate of Madeira is mild, equable, and moist. There are occasional storms of wind and rain, and fires are often necessary in the mornings and evenings. The mean annual temperature is 64·9°; that for winter being 60·6, spring 62·3, summer 69·5, and autumn 67·3. The annual rainfall is 29·23 inches; the days on which there is wet being about 70, whereas in London they number 178. The most injurious wind is the hot parching leste, from the east-south-east; which is often charged with a fine dust, very irritating to the air-passages.

The invalid who cannot bear a dry irritating, but needs a mild and soft atmosphere, will obtain it here. Laryngeal, bronchial, and pulmonary diseases are soothed; and benefit may be derived by patients threatened with consumption. If he wish to spend a second winter in Madeira before returning home, a voyage may be taken to Teneriffe in June, and the stay prolonged there until the end of October.

γ. THE CANARY ISLANDS.—This group (Fortunatæ Insulæ) consists of seven principal islands, and several islets. The climate differs from that of the foregoing in being warmer, drier, and less relaxing. At *Santa Cruz*, the capital of *Teneriffe* (the only island possessing good accommodation for the valetudinarian), the mean annual temperature is 70·15°; that for winter being 64·85, spring 68·87, summer 76·68, and autumn 74·17.—Orotava and Laguna are sometimes preferred to Santa Cruz.

453. *Cape of Good Hope—Natal.*

α. THE CAPE OF GOOD HOPE.—The climate is mild and healthy but very dry. The seasons are the reverse of those in Europe; December and January being the warmest, while June and July are the coldest months. The mean temperature for the winter months of 1858, at Cape Town, was 57° F. The prevalent diseases appear to be rheumatism and dysentery. Invalids from India are often benefited by spending a season at the Cape or at Natal.

β. NATAL.—This British Colony lies on the south-eastern border of Africa, about 800 miles from the Cape of Good Hope. There may be said to be only two seasons,—the summer from October to March, and the winter from the beginning of April to the end of September. Even in the latter, during the coldest months of 1858, the temperature was occasionally 78° F. in the neighbourhood of Maritzburg; while in the hottest months it was occasionally below 60°. (*The Colony of Natal.* By Robert J. Mann, M.D. p. 48. London, 1860.) Notwithstanding its almost tropical position, and the frequent vicissitudes of temperature, Natal is very

healthy. Dr. Mann remarks, that while 480 soldiers die yearly out of every 1000 stationed at Sierra Leone, 121 in 1000 at Jamaica, 78 in 1000 in the West Indies generally, 48 in 1000 in the Madras Presidency, 28 in 1000 at Bermuda, 27 in 1000 in the Mauritius, 25 in 1000 at St. Helena, 21 in 1000 at Gibraltar, 16 in 1000 in Malta and Canada, and 14 in every 1000 in Nova Scotia and New Brunswick,—only 13 in 1000 die yearly in the western districts of the Cape Colony, and only 9 in 1000 in the eastern district. During the Kafir war in 1835, not a single officer or man was invalided during the five months of active service. Newly-arrived settlers in Natal, remain for months under canvas, without the slightest injury.

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454. *Canada—New Brunswick—Nova Scotia—Newfoundland.*

α. Canada.—This British colony of North America is divided by the Ottawa river into the provinces of Upper or West Canada (chief city, Toronto), and Lower or East Canada (chief city, Quebec). The climate is marked by extremes, the winters being excessively cold, while the summers are just as hot. The coldness of the winter is mitigated, however, by the dryness of the air and the absence of high winds; while the way in which the Canadian protects himself with thick furs, and his house by well-managed stoves, enables him to set the frost at defiance. A gentleman, resident in Canada for six years, told the Author that with the thermometer $-20°$ he never felt the cold so raw and unpleasant, as in London at the beginning of January 1864.—The climate is also much milder in Upper than Lower Canada; but that of both provinces is healthy and conducive to longevity.

β. New Brunswick.—The climate of this portion of British North America resembles that of Canada; the winters being very severe, and the summers excessively hot. The winter, however, is mitigated by the length and fineness of the autumn,—the "Indian summer."

γ. Nova Scotia.—This peninsula of North America, forming part of the British colonial territory, is separated from New Brunswick by an isthmus 14 miles across. The climate is remarkable for vicissitudes of temperature, prolonged falls of rain, and occasional fogs. The inhabitants, nevertheless, are said to enjoy a remarkable degree of health.

δ. Newfoundland.—This island, lying off the coast of Labrador, is separated from the mainland by the Strait of Belleisle, 12 miles across. The surface is mostly marshy, and the soil unfavourable to cultivation. The winters are less severe than in Upper Canada, but the summers shorter. Dense fogs prevail along its banks, sometimes for the greater part of the summer. The annual mortality, however, scarcely exceeds 12 per 1000 of the population, so that the climate must be favourable to the constitution.

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455. *West Indian Islands.*

Invalids should not be sent to any of these islands; for though they are not as unhealthy as was formerly supposed, yet severe fevers and inflammatory diseases are common and run a rapid course. Moreover, the returns show that nearly twice as many cases of consumption originate among our troops stationed here, as at home.—If a man in search of health

will visit them, however, he must only do so between the months of December and April, after the heavy autumnal rains. JAMAICA, the chief of the British possessions, is reputed the most healthy. The BAHAMAS are resorted to by American invalids. In the BERMUDAS and the BARBADOES, dysentery, rheumatism, and yellow fever are the prevailing diseases.

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456. *Hill and Marine Sanitaria in India.*

The Indian *hill stations* offer a climate which is of great use to convalescents from fever, invalids from local cachexia &c.; and which exerts a powerful influence in maintaining the health and vigour of Europeans.

According to DR. W. J. MOORE, of the Bombay Medical Service, the climate of hill ranges differs from that of the plains in having a mean temperature some 10° to 15° cooler, in being above the influence of the hot winds, and in being more humid during the monsoon season. Various localities differ in minor points: in the *Himalayas*, a greater elevation will procure a colder climate; the fall of rain has sometimes been excessive at *Mahableshwar*, at *Nynee Tal*, &c.; while at many of the hill stations sanitary laws are still too much disregarded, and too little care is taken to protect the system from the inclemencies of the weather.

The climate of the hill stations in the *Himalayas*, of *Mount Aboo*, of *Ootocamund*, *Bangalore*, &c., as well as of *Matheran* and *Mahableshwar* in *Bombay*, is of great service to the European whose health has deteriorated from a residence on the Indian plains. The air invigorates both mind and body. But it is unsuitable where there is structural disease of any internal organ; diarrhœa and dysentery being increased by it, while affections of the brain and lungs and liver are much aggravated. Cholera, dysentery, and malarious fevers are less prevalent and fatal in the hill stations, than in the plains below. Yet these affections are met with at high elevations; as are also cases of hepatitis, tuberculosis, typhus, croup, diphtheria, smallpox, rheumatism, neuralgia, severe catarrh, and hill-diarrhœa.—It has been well suggested that European troops should be located more on the hills and less on the plains than is now the case; not waiting until they are weakened by disease, climate, and service to be sent to these more temperate and less malarious regions.

Many of the diseases which are aggravated by the hill stations of India, are much benefited by the greater purity and uniformity of the *sea climates*. The invalid who has been prostrated by the harsh parching winds of the interior, not only has his bodily sufferings greatly ameliorated by the moist fresh breeze from the sea, but the mere sight of the ocean raises his powers by giving him hope and confidence. It is necessary to select an open spot, with high cliffs and a rocky shore; low, flat, sandy coasts being generally unhealthy in the tropics. The proximity of the island of *Martaban* to Madras and Calcutta, as well as its geological characteristics, have led DR. MACPHERSON to recommend it as a marine sanitarium.

The weak-chested, and those persons of a strumous habit predisposed to phthisis, are often greatly benefited by a residence in India; but where tubercle is deposited in the lungs, the climate seems to accelerate the progress of the disease. Individuals of a phlegmatic temperament with difficulty in digesting, and a languid circulation, often improve very much in this country.

457. *Australia—Tasmania—New Zealand.*

α. AUSTRALIA.—The immense extent of territory known as Australia, in the South Pacific Ocean, possesses a temperate climate which appears very favourable to the European constitution. In speaking of this antipodal region it is necessary to remember that the meteorological phenomena are generally the reverse of those experienced in this country; the months of December, January, and February corresponding to our summer, and having a mean temperature of about 80°, while those of June, July, and August constitute the winter, the thermometer marking on an average 40° in an exposed situation.

In May 1836 the number of settlers in the district of *Victoria* (formerly Port Philip) was 177. At the end of a quarter of a century (April 1861), the amount had increased to 540,322. The total area of Victoria (86,831 miles) is nearly as large as that of England, Scotland, and Wales united. *Melbourne*, the capital of Victoria, is the most properous commercial city of the southern world. The mean annual temperature is 57°; extreme cold in winter, and excessive heat in summer (except nine or ten times in the season, under the influence of hot winds), being unknown. Although the annual rainfall is 26 inches (that for London being 21·6), yet the average number of wet days is much less than in Great Britain; for in Melbourne the rain falls with great violence, but it only lasts a few hours, and then the sky clears. A continuance of cloudy weather is unknown. There is a genial sun; with a pure, dry, stimulating air.

DR. S. DOUGAN BIRD says (*Australasian Climates, and their Influence in Pulmonary Consumption*, p. 41. London, 1863,) that the main characteristics of the Victorian climate are these:—"It is a temperate warm climate, whose average summer heat is but two or three degrees above that of London; while in winter it is warmer than Nice or Naples, and as warm as Valencia or Barcelona; and actual cold is never felt at, or near, the sea level. The air is generally dry, always stimulating and ozoniferous; but so tempered by the prevalence of ocean winds, that it is prevented from becoming irritating, like that of Nice or Provence. With this there is a very large proportion of sunny cheerful weather during the whole year. In no climate with which I am acquainted is there so much pleasant weather during the year as in Victoria—so many unclouded days, when it is neither too hot nor too cold—and an invalid has, consequently, every temptation to be in the open air."

Tuberculosis (*i.e.*, scrofula, phthisis, tabes mesenterica, and tubercular meningitis) is rare in Victoria, the mortality not being one-fourth of that in Great Britain from the same cause. Yet the population is composed of those who, hereditarily, from occupation, and mode of living (except that animal food is much cheaper) are as much predisposed to consumption, as the inhabitants of London or Liverpool.

In the penal establishments of *Pentridge* and *Collingwood* (the former five, the latter two miles from Melbourne,) with an average of 1000 male adult prisoners, the greater number undergoing long sentences, there was no death from consumption in 1860 or 1861. Comparing this with the statistics to be found in the *Reports of the Directors of Convict Prisons in England*, it appears that at Millbank, the greatest number of male prisoners in confinement, at any one time during 1860 was 741, the daily average throughout the year being 531, and the total number in the year 2404. Of these 2 were recommended for pardon on account of advanced consumption; 2 died from the same; and 102 were removed to the Invalid prisons of Dartmoor, Lewes, or Woking on account of phthisis. These numbers, moreover, do not include 16 who were removed for hæmoptysis.—At the

same prison in 1861, the greatest number of such prisoners in confinement at one time was 809, the daily average throughout the year 515, and the total number in the year 2612. Of these 5 died from phthisis, and 132 were removed to Invalid prisons on account of it. This number also does not include 19 removed for hæmoptysis.

At *Sydney* (the capital of New South Wales, East Australia) the mean annual temperature is about 65°. Heavy rains fall between June and September. Disease is said to assume a milder form here than in European countries. Dysentery and pulmonary affections are, however, not uncommon. The winters are colder than at Moreton Bay, though this season is very salubrious and agreeable.

Moreton Bay (Queensland, East Australia) has a fine winter climate which proves very useful in advanced cases of phthisis, with irritability of the system and a tendency to bronchial inflammation. The average temperature on the coast, during the cold months is 62° or 63; the air being soft and sedative, and the weather brilliant and sunny. A few miles inland the ground rises, and the air is more dry and bracing.

In cases of consumption with copious expectoration, and in the chronic bronchitis of old people, *Adelaide*, the chief city of South Australia, may be chosen as a residence. The air is dry, warm, and tonic; the winter temperature averaging 53°.

The invalid leaving England for Australia, will generally find the long uninterrupted voyage round the Cape of Good Hope, in a comfortable ship, much to be preferred to the more exciting and fatiguing "overland route," by way of Suez and Galle. The best time for leaving this country, is from the middle of October to the end of November; when the new home will be reached in about 90 days from Liverpool. Thus supposing him to arrive about the end of January he will find a pale-blue cloudless sky, and the thermometer at 90° in the middle of the day without any unpleasant sense of heat. With a feeling of new life, general exhilaration, and a good appetite, he will experience a desire to be at work. The difficulty seems to be to persuade the phthisical that they are not cured; and that the general rules of hygiène must be adopted, and all excesses avoided to prevent the pulmonary mischief again starting into activity, or to escape hepatic congestion, or that he may obtain and retain health and vigour.

β. Tasmania.—This island (known as Van Diemen's Land, until the abandonment of transportation in 1852) is separated from the southernmost point of Australia by Bass's Strait. The chief towns are *Hobart Town* in the south, and *Launceston* in the north; the climate of both being salubrious and delightful, and highly conducive to longevity. The latter port is reached in 24 hours, by steamer from Melbourne, and is beneficial to such cases as are usually sent to Pau. The air is moist, sedative, and equable. In the winter months of June, July, and August there is never great cold during the day. The mean annual temperature of Hobart Town is 52°. Tasmania is described as "the Garden of Australia."

γ. New Zealand.—This group in the South Pacific Ocean, consists of two principal (the North and Middle) and several smaller islands. The chief British settlements are *Auckland*, *New Plymouth* or *Tarauki*, *Hawkes Bay*, and *Wellington*, in the North Island; with *Nelson*, *Marlborough*, *Canterbury*, and *Otago* in the Middle Island. The temperature of New Zealand is marked by its uniformity. The mean of the warmest month at Auckland is 68°, and of the coldest at Otago 42°. The climate, which in general terms may be described as mild and soft, appears to be favourable to the European constitution.

XX. MINERAL WATERS.

458. *General Observations.*

Mineral waters have been used in medical practice since the days when ÆSCULAPIUS was worshipped throughout Greece, and when his temples were erected in healthy places, near wells which were believed to have healing powers. Like many other important remedies their virtues have been regarded with singular scepticism at one time, and with blind credulity at another. The practitioner in the present day wisely attempts to keep the middle course; neither over-estimating, nor unduly depreciating, the value of these agents in subduing diseases.

A mineral water is merely a complicated medicine, containing various salts and gases blended together. The ingredients are generally derived from the soil or rocks through which the waters pass; and they consist of saline principles, organic and inorganic matters, and more or less of a free gas (sulphuretted hydrogen, carbonic acid, nitrogen, or oxygen). The cause of the temperature of hot springs is a mystery; and philosophers know not whether it is due to the internal heat of the globe, to electricity, to chemical decomposition, or to volcanic agency. The heat is always under that of boiling water (212° F.), and it has varied but little during a long succession of years.—The waters are administered internally and applied externally; and they act chiefly by purifying the blood, increasing the processes of secretion and excretion, and by stimulating the cutaneous and visceral circulation. It cannot be doubted that these effects are due to the chemical composition and temperature of the waters; though it is allowed on all hands that the beneficial influence is aided by the locality of the spring, the nature of the climate, the absence of business and care, the diet, and the general regimen.

Mineral waters are useful only in chronic disorders, where there is but little, if any, structural change; or in cases where disease is threatened. Hence the sufferers sent to the Spas are for the most part affected with skin affections, rebellious ulcers, stiffness of limbs from old sprains &c.; chronic gout, rheumatism, sciatica, or neuralgia; hepatic or renal disorders; paralytic affections, where all active disease has been subdued; hysteria or hypochondriasis; or with certain functional disorders of the uterine system. Nothing but mischief can arise where there is either acute disease, tuberculosis, cancer, aneurism, or mischief about the heart. The young, and the very aged, moreover, will derive little or no benefit: and in pregnancy the use of the springs, to say the least, demands great caution.

The time for residing at some of the Spas is from May to September; but at several of the foreign ones it is only from June until the end of August. At a few of the hot springs, invalids (chiefly the gouty) remain through the winter. The treatment, however, is not commonly to be prolonged beyond six or eight weeks; and often three or four will suffice. The invalid should not be led to expect immediate relief. And he should be cautioned against the popular idea that the benefit derived will be in proportion to the quantity of water taken; while it may be as well to let him know that "critical eruptions" (psydracia thermalis), and "critical fluxes" are neither necessary nor advantageous. As a rule, bathing and drinking ought not to be commenced on the same day; and at first only a moderate quantity of the water should be taken. Very hot water is also to be cooled, and very cold to be warmed, before drinking.

When the strength will permit of it, early rising (at about 6 o'clock) is to be recommended, so that the doses may be taken before breakfast. The

contents of the tumbler are to be sipped slowly and methodically, not hastily swallowed like a nauseous draught; and an interval of 15 minutes, at least, should be allowed between each glass, which time may well be spent in a short walk. An hour after the last glass, a light breakfast is to be taken. Then, a gentle saunter, the bath, reading, writing letters &c. will agreeably occupy the hours till the early dinner; at which fruit and raw vegetables had better be avoided, while a moderate quantity of light wine, or of mild bitter beer may be allowed. An excursion to the objects of interest in the neighbourhood, perhaps one or two more glasses of water —never more than half the quantity taken in the morning,—a light supper at 8 o'clock, and bed two hours afterwards will complete the day's work.

Mineral waters are sometimes classified into the thermal or hot, and the cold springs. But a more useful division is into chalybeate, sulphurous, gaseous or acidulous, saline, iodo-bromated, and muriated lithia waters.

Class 1. *Chalybeate or Ferruginous Waters.*—A large number of waters contain small quantities of iron, but none are considered as belonging to this class unless the proportion of metal is considerable. The chief acidulous chalybeates (those which contain much carbonic acid gas) are the waters of Schwalbach, Spa, Pyrmont, Brückenau, the Cambray well at Cheltenham, and Tunbridge Wells. The principal saline acidulous chalybeates (such as, in addition to iron and carbonic acid, have a certain amount of sulphate and carbonate of soda, with chloride of sodium) are the springs of Franzensbad, Bocklet, Harrogate &c.—Chalybeate waters are useful in anæmia, and in functional disorders of the generative organs.

Class 2. *Sulphurous Waters.*—They have the odour of rotten eggs, owing to their impregnation with sulphuretted hydrogen. The chief sulphurous thermals are those of Aix-la-Chapelle, Baden near Vienna, Aix-les-Bains, Barèges, Bagnères de Luchon, St. Sauveur, Cauterets, Eaux-Bonnes, and Eaux-Chaudes. Amongst the cold sulphurous springs may be mentioned Harrogate and Bocklet.—Sulphurous waters are recommended in cutaneous, hepatic, uterine, rheumatic, gouty, and old constitutional syphilitic diseases. In chronic poisoning by mercury, lead, or copper they help to eliminate the injurious mineral.

Class 3. *Gaseous or Acidulous Waters.*—The carbonic acid gas gives these waters a sharp acidulous taste, with a sparkling appearance. The most important are the thermal springs of Vichy, and the cold of Fachingen and Bilin. The refreshing and exhilarating waters of this class are recommended in dyspepsia, hepatic derangement, gout and rheumatism &c.

Class 4. *Saline Waters.*—Those which are purgative and have sulphate of soda or sulphate of magnesia as their chief ingredients, are Epsom, Cheltenham, Leamington, Seidlitz, Pülna, Carlsbad, and Marienbad. Those which have chloride of sodium as their characteristic ingredient, are Wiesbaden, Baden-Baden, Homburg, Kissingen &c. The sulphate or carbonate of lime, or both, predominate in the thermal waters of Bath and Buxton; while the carbonate or bicarbonate of soda is the characteristic ingredient of the thermal springs at Ems, Teplitz &c.

Class 5. *Iodo-bromated Waters.*—The springs at Kreuznach are the most celebrated of this class; while in England there is the Woodhall spa. The waters are used in all forms of scrofula, in many chronic skin diseases, in uterine tumours, and in old-standing constitutional syphilis.

Class 6. *Muriated Lithia Waters.*—The springs of Baden-Baden have considerable reputation for the cure of gout and the uric acid diathesis, owing to the chloride of lithium which they contain.

459. *Tunbridge Wells, in Kent and Sussex.*

This town is more visited on account of its dry bracing air, beautiful varied scenery, and fine walks, than for its chalybeate Spa. The water of the latter has a temperature of 50°, is feebly ferruginous to the taste, contains about a quarter of a grain of *oxide of iron* to the pint, and has just sufficient *carbonic acid* to hold the metal in solution. Frequently, increased doses of steel are given with the water; or sulphate of magnesia may be added, if an aperient be needed. The chief value of the spring is witnessed in cases of anæmia and chlorosis, debility inducing dyspepsia, and in general lassitude from a too sedentary mode of life.

460. *Bath, in Somersetshire.*

The thermal mineral springs, situated in the southern part of the town, near the Abbey church, are four in number. The temperature of the waters varies from 120° F. to 104° F. Speaking generally, the solid contents are about ten grains to the pint. The chief constituents are *sulphate of lime, sulphate of soda, chloride of sodium, chloride of magnesium, carbonate of lime, silicic acid*, and a comparatively small portion of *iron*. The gases evolved consist of *nitrogen* in large quantity, with *oxygen* and *carbonic acid*.

The sparkling appearance of the waters at the springs, is due to the carbonic acid they contain. The quantity generally drank is from one-quarter to one pint, before breakfast and again in the afternoon. Taken quietly and leisurely the effect is usually to raise the temperature of the body, to quicken the circulation, to increase the appetite, and to promote the salivary and renal secretions. When headache, loss of appetite, thirst, nausea, mental depression, and a diminished flow of urine follow their use, they should either be discontinued or taken in very small doses.

The accommodation for bathing is excellent; there being good douche, shower, vapour, reclining, swimming, and chair baths. By the latter, worked with a crane, a helpless invalid is lowered into, and raised from, the water. The bath is to be taken three or four times a week, not too near the meal times, and the patient should remain in it from ten to thirty minutes. The proper temperature is 96° to to 98° F.

The spring and autumn are the best seasons for taking the baths and waters, though they may be advantageously employed in the winter. And the diseases which are most benefited by them are sub-acute gout, chronic rheumatism, sciatica, neuralgia, lumbago, rheumatoid arthritis, contracted or rigid joints, dyspepsia, paralysis from rheumatism or metallic poisoning, leucorrhœa, chorea, anæmia, lepra, eczema, and psoriasis.

461. *Cheltenham, in Gloucestershire.*

Since the cure of George the Third by the waters of the Royal Old Wells, this Spa has been a fashionable resort. Situated 8 miles E.N.E. of Gloucester, Cheltenham offers an agreeable permanent residence, particularly for valetudinarians from the East or West Indies. The climate in winter is mild and equable, rather moist, and sheltered by the Cotswold and other hills from the north and east winds. The season, however, is from the middle of April to the beginning of October.

The waters are chiefly taken internally. There are several cold springs, all of them powerfully saline except the Cambray chalybeate. The waters of the Royal Old Wells contain chiefly *chloride of sodium, chloride of calcium, chloride of magnesium*, and *sulphate of soda*. They are but slightly gaseous.

Some of the wells of the MONTPELLIER SPA have, in addition to the foregoing, a little *oxide of iron*, and *iodureted magnesian saline salts*. There is an unusual amount of *silica* in the PITTVILLE saline; while the CAMBRAY spring is strongly *chalybeate*. The Montpellier baths have accommodation for warm and cold bathing, swimming, medicated air and vapour, douches &c.

These springs enjoy considerable reputation for relieving the diseases engendered by a residence in tropical climates, and hence many old Indians with liver affections resort to them. They are also useful in gouty and rheumatic disorders, in the lithic acid diathesis, in plethoric and irritable systems, in skin diseases, in dyspepsia with torpidity of the bowels, as well as in some forms of amenorrhœa and chlorosis. The dose is usually from half a pint to one pint before breakfast; it is better to take the water pure, without the addition of any "solution" of the crystallized salts; and it may be warmed if a more than ordinary aperient effect is needed. The spring to be recommended must depend upon whether a simply alterative, or an alterative and tonic remedy is indicated.

462. *Purton and Melksham, in Wiltshire.*

The healthy village of PURTON in North Wilts, 4½ miles W.N.W. of Swindon, has a dry bracing air. The Spa is 2½ miles from the village, in a field known as Salt's Hole, where a pump-room has recently (1859) been erected for the accommodation of visitors. An analysis of the water shows that it is rich in *sulphate of soda*, *sulphate of magnesia*, *sulphate of lime*, *carbonate of potash*, and *chloride of sodium*. It has also small quantities of *sulphate of potash*, *silica*, *iodide of sodium*, and *bromide of magnesium*; with traces of *iron*, *phosphoric acid*, and *sulphuretted hydrogen*. There is a large amount of free *carbonic acid gas*; and the temperature is 58·5° F.

The Purton sulphated and bromo-iodated saline water may be recommended where an alterative stimulant is needed. It seems to have been useful in strumous sores and enlarged glands, threatened consumption, stomach and liver disorders, gouty and rheumatic affections, obstinate skin diseases, and in functional derangements of the uterine system. The dose is from half a pint to a pint before breakfast, with half a pint in the evening.

The small town of MELKSHAM lies 10 miles E.S.E. of Bath, in a fine open country. In its vicinity are baths and a pump-room erected over the chalybeate and saline springs. The chief constituents of the waters are the salts of *lime* and *magnesia*, with smaller portions of *soda* and *iron*; and they are artificially charged with gas for exportation. In strumous, rheumatic, and cutaneous diseases, the medicated vapour and douche baths may be employed simultaneously with the internal use of the waters.

463. *Leamington, in Warwickshire.*

Being less protected by hills than Cheltenham, the town of Leamington, 2½ miles E. of Warwick, has a lower temperature. The climate, however, is genial and bracing, but humid; while it is agreeable and healthy to the flagging invalid during the autumn and winter months.

The springs all lie near the banks of the Leam; their principal salts being,—*chloride of sodium*, *sulphate of soda*, *chloride of calcium*, and *chloride of magnesium*. The chief gas is *carbonic acid*, with great quantities of *nitrogen* and *oxygen*. The most ancient and most used of the springs is

the OLD WELL. The water at GOOLD'S SPRING AND BATHS contains more *chloride of sodium*, while CURTIS'S WELL has more *muriate of magnesia* than the others. The VICTORIA WELL AND PUMP-ROOM, possesses a weak *sulphurous*, and a *saline chalybeate* spring; and so does LEE'S WELL.

The temperature of the Leamington waters is about 48° F.; and their action is aperient and alterative. They are suitable for the same class of cases as is sent to the Cheltenham springs: but being more active, they agree better with invalids of a torpid habit, than with those of a susceptible irritable temperament.

464. *Buxton, in Derbyshire.*

For invalids requiring mountain air Buxton may be recommended. Situated 31 miles W.N.W. of Derby, at an elevation of 900 feet, while some of the neighbouring hills are 2000 feet above the sea, it enjoys a pure bracing air. The season is chiefly from June to October; the winds being sharp and cold late in the autumn, during winter, and early in the spring. It is not to be selected where there is a tendency to internal hæmorrhage.

The Buxton waters issue abundantly from several crevices in the limestone rock, at a temperature of 82° F. The chief saline salts in them are, *carbonate of lime*, *carbonate of magnesia*, *chloride of sodium* and *calcium* and *potassium*, with *silica*, *carbonate of protoxide of iron*, and traces of *fluoride of calcium* and *phosphate of lime:* though so small is the quantity, that in the whole, they only amount to 18·434 grains in the imperial gallon. In the same amount of water DR. PLAYFAIR found (1852) *free carbonic acid*, in weight, 704·2 grains, *nitrogen gas* 206 cubic inches, and *carbonic acid gas* 15·66 cubic inches. According to the most recent analysis by DR. SHERIDAN MUSPRATT (1860) the quantity of *nitrogen gas*, at the moment of issue, is no less than 504 cubic inches per gallon.—As these waters, minus their gases, have only the composition of ordinary spring water, their stimulating effects are generally attributed to the nitrogen. They are, however, chiefly used externally; the accommodation for plunge, swimming, and douche baths being excellent. The good which results from the latter is most marked in cases of gout and rheumatism, sprains and muscular contractions, and where it is wished to stimulate the vascular or nervous or digestive systems.

A pleasant drive from Buxton is the picturesque village of MATLOCK, built on the slope of a hill, at the base of which flows the Derwent. It is an agreeable summer residence, and its springs supply large tepid baths. The water, however, has no medicinal properties, though the guide-books describe Matlock as a valuable Spa.

465. *Woodhall, in Lincolnshire.*

This strong saline spring rises in a plain 3 miles W.S.W. of Horncastle, and contains more *iodine* and *bromine* than any other English water. It has also 189 grains of *chloride of sodium* in the pint, with a little *chloride of calcium* and *magnesium*, *bicarbonate of soda*, and *sulphate of soda*. The temperature is 55°. It is chiefly used externally in rheumatic and cutaneous affections, and in scrofula. Taken internally, half a pint acts as a mild aperient.

466. *Harrogate, in Yorkshire.*

High and Low Harrogate, half a mile distant from each other, and 2½ miles W. of York, are filled with visitors during the season,—from June until the middle of October. The air is pure and bracing, but somewhat humid. Low Harrogate is the most sheltered.

There are upwards of fifty different springs, some of which have been in repute since the end of the 17th century. The waters are all cold, being generally warmed artificially before they are drunk. Dr. Kennion divides the springs into four distinct groups:—(1) The strong sulphurous waters. (2) The mild sulphurous waters with alkaline impregnations. (3) The saline chalybeate waters. And (4) The pure chalybeate waters.

1. Strong Sulphurous Springs.—As types of this class may be mentioned the Old Sulphur Well in the Royal Pump Room, and the strong Montpelier Sulphur Well in the Montpelier Gardens. They are both impregnated with *sulphuretted hydrogen gas* (upwards of 25 cubic inches in the gallon); their chief salts being *chlorides of sodium*, *calcium*, *potassium*, and *magnesium*, *sulphide of sodium*, and *carbonate of lime*, with traces of *bromide of sodium*, *iodide of sodium* &c. The waters are alterative, aperient, stimulant, and diuretic: they are taken internally, and used as baths.

2. Mild Sulphurous Springs with Alkaline Impregnations.—The two most important are the mild Montpelier Well, and the one at the Victoria Gardens. They contain much less *sulphuretted hydrogen*, less *chloride of sodium*, and less *chloride of magnesium* than those of the preceding group; but they have in addition *carbonate of magnesia*. They are antacid, alterative, diuretic, and deobstruent; and are used externally as well as internally.

3. Saline Chalybeate Waters.—One of these springs is in the Cheltenham Pump Room, the other in the Montpelier Gardens. In addition to the salts already mentioned they contain *carbonate of iron*, so that they have a tonic action superadded to their other properties.

4. Pure Chalybeate Waters.—The springs of the Tewhit and St. John's Well, have almost the composition of pure water, with the addition of a small quantity of *carbonate of iron*.

Invalids with all forms of chronic disease visit Harrogate to drink the waters. But the cases most likely to derive benefit are the following:—Imperfect digestion, in men too fond of good living, where the bowels and liver are inactive, (the strong sulphur springs); chronic skin diseases, such as eczema, lepra, psoriasis, pityriasis, lichen &c. (the sulphur, beginning with the mild); gouty and rheumatic affections, (the strong sulphur); threatened phthisis, especially in young women with disordered menstruation, (the mild sulphur, alternately with the pure chalybeate); strumous affections, (the saline chalybeate); and lupus, chronic ulcers &c.

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467. *Spa, in Belgium.*

Situated near the frontier of Rhenish Prussia, in the beautiful valley of the Ardennes, at the foot of a steep mountain sheltering it from the north winds, is Spa. It possesses the only mineral springs found in Belgium. The waters of the principal well—the Pouhon—have a temperature of 52° F., and are largely charged with carbonic acid; the chief solid constituents being the *bicarbonates of soda*, *iron*, *lime*, and *magnesia*.

The wells of the Sauvinière, Groesbeck, Geroustère, and the Tonnelet are situated at short distances from the town. Their waters are similar to those of the Pouhon, but the proportion of iron is smaller. The Tonnelet spring is the most gaseous.

These gaseous chalybeate waters are employed, to the extent of two or three pints daily, commencing with a couple of glasses before breakfast. They impart power, strengthen the digestion, and are valuable in such

cachectic and other diseases as require a ferruginous tonic.—The season is from the commencement of May until the end of July.

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468. *Bagnères de Bigorre, in the Pyrenees.*

This celebrated watering-place is situated at the foot of the Pyrenees, on the left bank of the Adour, about 35 miles to the south-east of Pau. The season commences in June and ends about the middle of October.

The springs in Bagnères and its neighbourhood are numerous, and may be divided into three classes:—1. THE SALINE. The temperature of these waters varies from 124° to 85° F.; the chief chemical products found in them being *carbonic acid*, *chlorides of magnesium* and *sodium*, *sulphates of lime*, *soda*, and *magnesia*, *subcarbonates of lime*, *magnesia*, and *iron*, an infinitesimal proportion of *arsenic*, with *resinous* and *vegetable extractive matter*, and *silex*. 2. THE FERRUGINOUS. There is only one spring of this kind, properly so-called—la Fontaine Ferrugineuse. 3. THE SULPHUROUS. Only one sulphurous spring has much reputation,—that of Labassere; and its waters contain a minute quantity of *carbonic acid*, *hydro-sulphuric acid*, *chloride of sodium*, *hydro-sulphate of soda*, *subcarbonate of soda*, *vegeto-animal matter*, and *silex*.

The general effect of the waters, taken internally and as baths, is that of a stimulant to the mucous membranes, kidneys, lymphatic system, and skin. They are useful, more particularly, in diseases of the bones and articulations; in chronic rheumatism, and allied disorders, as neuralgia, sciatica &c.; in atonic dyspepsia from over-mental work; and in nervous affections, — hysteria, palpitations, hypochondriasis, gastrodynia &c., especially if there be biliary derangements. The Labassere waters are beneficial in cases of excessive secretion from the mucous canals, in many skin diseases, and in some morbid states of the abdominal viscera. In anæmic conditions, valuable effects result from the employment of the ferruginous spring.—Patients who have been benefited by Pau during the winter may advantageously proceed to Bagnères for the summer.

When the saline waters are taken for their alterative effects, the daily dose is small—about a pint; but if a purgative action is needed, from one to two quarts, in divided quantities, should be drunk daily.

469. *Capbern, in the Pyrenees.*

Situated about ten miles from Bagnères de Bigorre, the waters of Capbern are of a saline character like most of those of that neighbourhood. Their chief constituents are *carbonic acid gas*, *sulphates of lime* and *magnesia*, with *carbonate of lime*. One authority says that they also contain carbonate of iron, while another asserts that there is not a trace of it. They are deemed useful in congestions of internal organs, and are supposed to have warded off apoplectic seizures, when the cerebral circulation has been sluggish: they stimulate the uterus and ovaries, and have been said to cure sterility: while many cases of chlorosis, leucorrhœa, dysmenorrhœa &c. seem to have been benefited by them. The dose is from four to six tumblers, early in the morning, taking exercise between each glass. At the same time reclining or douche baths are employed.

470. *Barèges, in the Pyrenees.*

This village, on the Gave de Bastan, about 47 miles from Pau, is nearly

4000 feet above the sea.—The season lasts from the beginning of June to the middle of September.

The well-known sulphurous and stimulating waters of Barèges are of three kinds, as regards temperature:—viz. the *hot source*, the *temperate*, and the *tepid*. The principal baths are, the BAIN DE L'ENTREE, 107° F.; BAIN DU FOND, 98°; BAIN DE POLARD, 101°; and BAIN DE LA CHAPELLE, 84°. The waters of all are limpid, have an oily nauseous flavour, and exhale an odour of rotten eggs. They contain *nitrogen*, *sulphuret of sodium*, *sulphate of soda*, *chloride of sodium*, *silica*, *lime* &c. On their surface is found a thin pellicle called *barègine* or *glairine*; which is probably of a vegetable character, and is supposed to have some peculiar power in curing chronic rheumatism.

These waters are beneficial in inveterate squamous, pustular, and papular skin affections; in some forms of scrofula; in chronic rheumatism, sciatica, lumbago, and stiffness of the muscles or tendons; in strumous and other indolent ill-conditioned ulcers; and in irritation from the presence of carious or necrosed bone. For healing sinuses left by old gun-shot wounds they are considered particularly efficacious. Pulmonary cases derive more benefit from Eaux-Bonnes and Cauterets. And the waters of Barèges are not to be prescribed where there is any tendency to inflammatory disorders, or in heart disease, or for irritable nervous temperaments. They are more powerful and stimulating than the waters of St. Sauveur.

The waters are taken internally, as well as employed in the form of baths, douches, lotions, and injections.

471. *St. Sauveur, in the Pyrenees.*

Situated on the Gave de Pau, in the valley of Laverdan, this watering place is 44 miles from Pau, 4 from Barèges, and 1 from Luz. The still Alpine air is mild, and yet bracing. The season is from May until October.

The waters are milder than those of Barèges, but have the same constituents. They are useful for women and children, in the same disorders as are sent to Barèges. Hysteria, neuralgia, hypochondriasis, leucorrhœa, and irregularities of the catamenial flow, are much benefited by them. When taken internally they have to be diluted, their greasy properties, from the excess of barègine, being so great. They are mostly used as reclining and douche baths, vaginal injections &c.

472. *Bagnères de Luchon, in the Pyrenees.*

This little town, in a magnificent valley surrounded by noble mountains, is 85 miles from Pau, and 2000 feet above the sea. The season lasts from May to October.

There are upwards of 48 thermal sulphurous springs, the temperature of the waters varying from 152° to 62° F. Their chief constituents are *sulphuret of sodium*, *chloride of sodium*, *silicate of lime*, and *silica*; with traces of the *sulphurets of iron* and *manganese*, *iodide of sodium*, *sulphate of potash* and *soda*, and *sulphite of soda* &c. They are efficacious in chronic skin diseases, in stiffness of limbs after dislocations and fractures, in old ulcers, chronic bronchitis, rheumatism, and neuralgia. Also in some cases of torpid digestion, anæmia, hypochondriasis, hysteria &c. Their effects are injurious when there is a tendency to plethora and nervous irritability. They are drunk, in doses of three or four glasses, pure or mixed with milk; and are used as baths, injections, lotions, eye-washes &c.

473. *Cauterets, in the Pyrenees.*

This celebrated watering-place, imbedded among the mountains, in the valley of Lavedan, 3057 feet above the level of the sea, and more sheltered than Barèges, is much frequented by Spanish invalids. July and August are the best months, but September is also good. There are some 32 sulphuretted saline springs, the temperature of the warmest being 122° F.

Some of the waters are very stimulating, causing headache and feverishness. They contain *nitrogen*, *sulphuret of sodium*, *sulphate of soda*, *chloride of sodium*, *silica*, *barègine* &c. They are not to be used where there is any tendency to inflammatory affections. The cases most benefited are chronic derangements of digestive organs, chronic rheumatism and rheumatoid arthritis, chronic skin diseases, uterine congestions or irritations, bronchial catarrh, the early stages of phthisis, and strumous affections. The waters are often taken diluted with milk.

The baths are especially valuable in rheumatic affections, scrofula, and obstinate skin diseases.

474. *Eaux-Bonnes, in the Pyrenees.*

Eaux-Bonnes, a village in a sheltered valley at the foot of the Pic de Gers, is 22 miles from Pau. The air is remarkably pure and fresh. The mineral waters, of which the supply is scanty, have been deemed efficacious in the early stages of tubercular and other chronic diseases of the respiratory organs. They are likewise useful in scrofula generally, in chlorosis, in dyspepsia from want of tone, and in amenorrhœa. The springs are slightly alkaline, and contain *chloride of sodium*, *sulphates of lime* and *soda*, *iodide of sodium* &c. Their temperature is about 90° F. The sulphurous waters are mildly stimulating; and are taken internally, and less frequently applied in the form of baths. In the commencement only small doses (three ounces) should be taken, the quantity being gradually increased to three or four glasses of six ounces each. While undergoing treatment the patient is encouraged to live as much in the open air as his symptoms will permit. A residence of about a month, for one or two seasons (the season lasts from June to the middle of September) is generally deemed sufficient. Afterwards a trip to Biarritz, for the enjoyment of sea-bathing, may often be taken with advantage.

475. *Eaux-Chaudes, Pyrenees.*

The position of this village, hemmed in by precipitous limestone cliffs, is wild and secluded. It lies about 26 miles from Pau, and 4 from Eaux Bonnes. The season lasts from the beginning of July until the end of October.

Of the six springs some are used for baths, others as internal remedies. The hottest source is Le Clot (96°): while L'Esquirette has the largest amount of salts. The waters contain *sulphuret of sodium*, *sulphate of lime*, and *silica*. They deposit *sulfuraire*, a gelatinous substance probably consisting of confervæ. Their taste is disagreeable, the smell of rotten eggs being powerful.

The waters (two to six glasses early in the morning) and baths are useful in rheumatism and sciatica, in neuralgia, in threatened pulmonary disease, in scrofula, and in atonic dyspepsia.

476. *Ussat, in the Pyrenees.*

The mineral baths of Ussat, in the Department of the Ariége, are 70 miles from Toulouse, the inhabitants of which city value them highly.

They contain about 11 grains of solids to the pint,—chiefly *sulphates* and *carbonates of lime* and *magnesia*, and *chloride of sodium*, with traces of *arsenic*. The waters belong to the acidulous thermal class; are not at all unpleasant; are soothing to the nervous system; and hence prove useful in hypochondriasis, hysteria, chorea, paralysis agitans, neuralgia, cramp, muscular pains, dysmenorrhœa, irritable conditions of uterus &c. Though sometimes taken internally, they are chiefly used as baths. The season lasts from June to October.

477. *Vernet les Bains, in the Eastern Pyrenees.*

The little village of Vernet, 16 miles from Perpignan, is placed in a deep well sheltered valley. The waters belong to the thermal sulphurous class, but are only feebly charged with solids—amongst others, sulphuret of sodium.

Where a long course of weak sulphur waters is needed, these baths may be resorted to in the winter as well as in the summer months. Sunny walks may be had on most days in winter. The waters are taken internally, and employed as warm and vapour baths; and this combination of drinking and bathing is thought efficacious in chronic chest affections.

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478. *Panticosa, in Arragon.*

This remarkable Spanish watering-place, 56 miles from Pau, is situated at a level of 8500 feet above the sea. It is romantically placed in one of the little green valleys of the Pyrenees; being surrounded by the lofty granite mountains, except at one part through which flows the river Caldarés. There are four springs; two being saline, one sulphurous, and one ferruginous. The chief source is the FUENTE DEL HIGADO, which contains *nitrogen* in large quantity, with feeble proportions of *sulphate of soda*, *chloride of sodium*, *carbonate of lime*, *chloride of magnesium*, and *silica*. Its waters are agreeable, have a temperature of 81° F., and numerous gas bubbles (owing to its free nitrogen) escape with it.

The waters taken internally increase the secretions of the kidneys and skin; produce a sedative effect on the system; increase the appetite and general powers; and in pulmonary cases, relieve the cough. They are particularly recommended in laryngeal phthisis, in hæmorrhage from lungs or stomach or uterus, and in chronic irritation of the bronchial or intestinal mucous membranes. Where there is softened tubercle, or much debility of system, they do harm. The best part of the season is from the beginning of July to the end of August.

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479. *Vichy, in Central France.*

This important alkaline thermal bath is situated on the right bank of the Allier, in a large open valley, surrounded by hills covered with vineyards. The air is temperate and pure. The season lasts from the middle of May to the 15th September.

The springs used at Vichy for drinking and bathing are nine in number; the waters of all being limpid, and having somewhat the taste of soda water. *Bicarbonate of soda* and *carbonic acid gas* form the predominating ingredients; but they also contain small quantities of the *bicarbonates of potash* and *magnesia*, with the *arseniate of soda*. There is also some

barègine, most abundant at the Source de l'Hôpital. The proportion of chief chemical components, in the sources generally resorted to, is shown in the following table :—

		Grs.		Grs.
Grande Grille	107·8° F.	Bicarb. soda, 37·50	Carb. acid gas,	6·97 to each 16 ozs.
Puits-Chomel	109·6°	„ 39·09	„	5·91 „
Fontaine de l'Hôpital...	89°	„ 38·60	„	8·21 „
Fontaine des Célestins .	58·6°	„ 39·19	„	8·04 „
Grand Puits Carré	110·5°	„ 37·57	„	6·71 „
Puits d'Hauterive	59°	„ 36·99	„	20·92 „

Wherever the use of strongly alkaline waters is indicated, those of Vichy will prove useful. They may be taken internally, or employed as baths; or used in both ways at the same time. The diseases which derive most benefit, are,—pulmonary catarrh; debility and irritability of the digestive organs; chronic enlargement of the liver and spleen; uric acid gravel and calculi; vesical catarrh; chronic gout and rheumatism; diabetes; and some cases of albuminuria. Obesity has been lessened by these waters; and they might be employed with advantage where the blood contains an excess of fibrin.—The dose is from half a pint to two pints daily; but they must not be continued too long, lest a super-alkaline condition of the blood be induced.

The Vichy waters are exported in considerable quantities, and it is supposed without their undergoing any deterioration.

480. *Mont D'Or, in Central France.*

At this bath there are six thermal sources and one cold spring. The water of the latter, St. Marguerite, is acidulous from the carbonic acid it contains, has a temperature of 52° F., and is an agreeable drink mixed with milk or wine. The thermal sources are Le Grand Bain (108° F.), the Source of Cæsar (113°), the Fountain Caroline (107°), the Bain Raymond (109°), the Rigny (109°), and the Madeleine (114°). The ingredients in the different waters only vary in quantity; consisting of the *carbonates of soda* and *lime*, *chloride of sodium*, *sulphate of soda*, with mere traces of *iron* and *alumina*. They all contain an excess of *carbonic acid*. The Madeleine spring is also strongly arsenical.

Besides drinking the waters, most invalids employ warm bathing. The effect is to increase the perspiration; and at the end of a few days to produce "the bath-fever" (lassitude, depression, constipation &c.) which soon passes off. The invalids who will derive benefit from a visit to Mont D'Or are such as have chronic pulmonary catarrh, some kinds of asthma, rheumatism, and congestion of the liver. Mischief will result to persons of a languid circulation, and such as have a tendency to hæmorrhage.

The season is from the middle of July to the end of August; but the waters should not be used for more than a fortnight, on account of their exciting properties. The visitors who drink them, take three or four glasses daily.

481. *Neris, in Central France.*

The thermal springs of Neris are resorted to, from May until October, for the purpose of drinking the waters and bathing in them. There are four wells; the temperature of the waters at their source being about 120° F. They are insipid and oily; containing only small proportions of *carbonic acid*, *bicarbonate of soda*, *sulphate of soda*, and *chloride of sodium*. Confervæ grow freely in the basins. These waters are recommended in cases of nervous and hysterical excitement, in rheumatism, and prurigo.

482. *St. Galmier, in Central France.*

These waters, owing to their richness in *carbonic acid gas*, are agreeable whether taken pure or mixed with wine; while they have the property of hastening digestion, increasing the appetite, and augmenting absorption from the alimentary canal. The chief salts in them are the *bicarbonates of lime* and *magnesia*.

The St. Galmier waters are cold, and resemble Seltzer water. They are in common use at Lyons; being deemed useful in gastric affections, and for preventing the formation of urinary calculi.

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483. *Aix-la-Chapelle, in Rhenish Prussia.*

This handsome city, 40 miles W.S.W. of Cologne, is situated in a valley between the Rhine and Maas rivers, and is surrounded by well-wooded hills. There are eight principal springs,—six thermal and slightly sulphurous, and two cold chalybeate. Their therapeutical effects are due to the high temperature of the water (varying from 111° to 131° F.), and the *sulphur* and *chloride of sodium* contained in it. The latter salt is found in the proportion of about 20 grains to the 16 ounces: while the sulphuret of sodium varies from three-quarters to a quarter of a grain.—The chalybeate springs are sometimes employed as an "after-cure;" but they have little power, one containing half, and the other three-quarters of a grain of iron in the sixteen ounces, with some carbonic acid.

In doses of a few glasses these clear transparent waters produce but little appreciable effect; their chief use being externally,—as vapour baths, douches, shampooing &c. They have considerable reputation for curing scrofula, skin diseases, ulcers, and gun-shot wounds.—The season begins in June and ends about the middle of September.

484. *Kreuznach, in Rhenish Prussia.*

The rather nauseous and bitter waters of this Spa have a considerable reputation for the cure of uterine diseases, as well as of most scrofulous affections. The chief waters are those of the ELISABETH BRUNNEN, having a temperature of 54·50° F. They contain about 90 grains of solid constituents in 16 ounces; chiefly,—*chloride of sodium* (73), *chloride of calcium* (13), *chloride of magnesium* (4), *bromide of magnesium* ($\frac{1}{4}$), *oxide of iron* ($\frac{1}{6}$), with a trace of *iodide of magnesium* &c. The KARLSHALLER WATER has a temperature of 59°, and 75 grains of salts in the sixteen ounces; the THEODORSHALLE, 70·25°, and 87 grains; while for the chief well of MUNSTER the numbers are 81·50°, with from 64 to 76 grains.

In drinking the waters it is better to begin with small quantities, which may be drunk pure or mixed with hot milk. The baths are generally taken tepid; "mother-lye" (the brownish glutinous liquid left in the boiling pans, after the salt has been crystallized and removed) being added to the water, in proportions suitable to the requirements of each case. In uterine affections, fomentations and vaginal injections are employed in addition to the baths.

The Kreuznach waters have proved valuable in congestions of the uterine organs; as well as in chronic inflammatory affections of these parts, in hypertrophy and induration, in uterine displacements, and in derangements of the menstrual functions. DR. PRIEGER, who has had very great

experience in the use of these waters, tells the Author that he has never seen a true fibroid tumour of the uterus absorbed through their influence; but when such a growth is œdematous or congested, the waters relieve these complications.

The season extends from the end of April until the beginning of October. The stay which a patient should make may vary from six to eight weeks.

The springs of NAUHEIM, a village of Hessen-Cassel, resemble those of Kreuznach, except that they contain, rather more chloride of sodium, only a trace of bromide of magnesium, and none of the iodide of magnesium. There is also an abundance of carbonic acid; and the temperature of the four chief springs varies from 72° to 92° F. The waters are drunk and used as baths; while like those of Kreuznach, they are recommended for all strumous affections.

485. *Neuenahr, in Rhenish Prussia.*

This village, in the valley of the Ahr, is easily reached from Cologne. Of the springs, the Victoria is the best. MR. MILLER, the late Professor of Surgery in the University of Edinburgh, says that it is the richest of all known brunnens in carbonic acid. It furnishes some 29,792 cubic feet of water daily; an analysis of which has shown the presence of small quantities of *bicarbonate of soda, sulphate of soda, chloride of sodium, bicarbonate of magnesia, bicarbonate of lime, protoxide of iron and alumina, silica*, and free *carbonic acid.*

The waters are taken internally and applied externally. The dose is from two to five tumblerfuls, early in the morning; with half the quantity in the evening. The temperature of the water is between 78° and 80° F.; and the taste is pungent and pleasant, resembling—as an English valet said—"Seltzer water with the chill off." The best time for the bath is two or three hours after breakfast; the temperature of the water being about 88° F., and the time for remaining in it twenty minutes. When the invalid is acclimatised, the douche may be used if needful.

The waters are tonic and anti-rheumatic; acting especially on the mucous membranes and the glandular system. They are useful in simple dyspepsia, diminished secretion of bile, irritability of bladder with excess of uric acid in the urine, chronic gout and rheumatism, asthma uncomplicated with organic disease, chronic affections of larynx or bronchi, eczema and prurigo, and chronic uterine maladies. — In a person apparently healthy DR. WEIDGEN found that the use of the waters was followed by these effects:— A sense of warmth in the stomach soon after drinking; exhilaration; increased flow of urine; increased appetite; and increased salivary and bronchial secretions. After a week the bowels were affected; copious, soft, bilious evacuations being produced. The urine became neutral, but never alkaline.

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486. *Ems, Duchy of Nassau.*

Ems, or Bad-Ems (as the Spa is called, to distinguish it from the village), lies on the right bank of the sluggish Lahn, enclosed in a narrow valley between high mountains, 15 miles N. of Wiesbaden.—There are several springs. The waters are alkaline, saline, and gaseous; while the temperature varies from 86° F. to 133°. The chief constituents are *bicarbonate of soda, chloride of sodium*, and *bicarbonate of magnesia*; with small quantities of *iron, manganese, potash*, and *lithia.* Their action is that of a mild altera-

tive, diuretic, and laxative; and they are believed to favourably influence all catarrhal affections of the mucous membranes.

The principal drinking springs are the KRÄNCHENBRUNNEN and the KESSELBRUNNEN. The waters of the former are clear, odourless, have a temperature of 91° F., and leave a soapy taste owing to the soda they contain. According to STRUVE each 16 ounces contains $15\frac{1}{2}$ cubic inches of free carbonic acid gas. The Kesselbrunnen or Kurbrunnen waters give out more carbonic acid gas, and are 118° F. The dose is from one to six beakers, each holding about 4 oz. In many cases it is an improvement to add one-third part of goats' or asses' milk to the measure.

The waters are also employed externally, the baths being partly filled over-night to lower the temperature. The BUBENQUELLE (boy's spring), 117° F., is used as a vaginal douche, and is in repute for the cure of sterility.

The waters generally are recommended in bronchial and pulmonary affections, and in the dyspepsia of such as have only a tendency to phthisis. For the relief of the lithic acid diathesis they are valuable, but less so than those of Vichy. For drinking and bathing, French and German visitors usually resort to Ems in June. Our own countrymen, however, seem to prefer July and August; though the narrowness of the valley in which this bath is situated causes the air to be very oppressive and relaxing during these months.

The mineral springs of FACHINGEN, a village 9 miles E.N.E. of Nassau, on the Lahn, resemble those of Ems, the salts being present in rather smaller proportions. The waters form an agreeable antacid drink in some forms of dyspepsia.

487. *Selters, in Nassau.*

This village, in a pleasant valley 37 miles N. of Wiesbaden, is everywhere famous for its mineral springs; an enormous quantity of Seltzer water being annually exported.

The water has a temperature of 60° F., and contains much more than its volume of carbonic acid gas. It has about 32 grains of solids in the sixteen ounces; chiefly *chloride of sodium* (18), and *carbonate of soda* (9), with minute quantities of *sulphate of soda*, *lime*, *magnesia*, and *iron*. Seltzer water stimulates the stomach; and is a grateful, antacid, slightly alterative drink.

488. *Schwalbach and Schlangenbad, in Nassau.*

SCHWALBACH or LANGENSCHWALBACH, 8 miles N.W. of Wiesbaden, consists of one long street, in the middle of which is the Kursaal. The gaseous chalybeate waters, with a temperature of 50° F., owe their invigorating properties to *carbonate of iron*, which is held in solution by an excess of *carbonic acid*. They also contain a small amount of the *bicarbonates of soda*, *magnesia*, and *lime*. The chief springs are—the WEINBRUNNEN, near the Kursaal, which contains most iron, and is believed to counteract the evils arising from excessive indulgence in wine; the PAULINENBRUNNEN, the mildest, which is used by invalids from tropical climates with torpid livers; the ROSENBRUNNEN, only employed externally, the baths being heated by steam to 86°; and the STAHLBRUNNEN, in the northern valley, which is the most exciting of the springs. The waters are drunk fasting, to the amount of one to three glasses; and they may be strongly recommended in cases of impaired strength where a ferruginous tonic is indicated. The bath should be taken about two hours after breakfast, omitting its use

every third or fourth day. The best time for a visit to Schwalbach is from the middle of June until the end of August.

Rather more than 2 miles from Schwalbach, in a pleasant valley, with romantic environs, is SCHLANGENBAD. The climate is pure and bracing: but as a Spa it is of insignificant value, owing to the small amount of solid constituents—only a few grains of *carbonate of soda*, *lime*, and *magnesia*, with *common salt*—in the waters. Warm saline and mud baths are used by the visitors; such amusements being in repute for softening and whitening ("satinizing") the skin, and for allaying nervous irritability.

489. *Wiesbaden, in Nassau.*

Wiesbaden, the capital of the Duchy of Nassau, lies on the southern slope of the Taunus mountain, 5 miles N.N.W. of Mayence. It is the most frequented of the watering places in Germany. The season extends from June until September, but it is very hot in July and August. Owing to the shelter afforded by the several peaks of the Taunus, the autumnal and winter climate is good.

There are some eighteen or twenty thermal springs, but only one is of much importance. This, the KOCHBRUNNEN, appears literally to resemble a boiling well. The temperature reaches 160° F., volumes of vapour are emitted, and the water contains some 63 grains of solids in the sixteen ounces. The salts are *chloride of sodium* (52½); with small quantities of *potash*, *lime*, *iron*, *magnesia*, *arseniate of lime*, *bromide of magnesium* &c. The *carbonic acid gas* is one-fifth of the bulk of the water. DR. GRANVILLE compares the taste to that of weak chicken-broth slightly salted. Taken in a dose of three or four glasses, cooled, before breakfast, it has a slightly laxative effect, and increases the appetite. As baths, at a temperature varying from 86° to 98°, about two hours after a light breakfast, the waters are somewhat soothing, while they increase the action of the skin and kidneys.

The cases in which these waters are likely to prove valuable, are chronic gout and rheumatism, hepatic congestion with hæmorrhoids, and chronic skin disease connected with abdominal plethora. They will be injurious in debility, in congestion of the uterine organs, or where there is a tendency to apoplexy or any other form of hæmorrhage. The invalid may know that they disagree, when prostration, loss of appetite, constipation, irritability, and palpitations are produced.

490. *Soden, in Nassau.*

The waters of Soden, in the Taunus near Frankfort, are saline and gaseous, issuing from twenty-three springs, scattered through the village. Their temperature varies from 64° to 75° F.

The most important springs are,—the MILCHBRUNNEN containing 23 grains of solids in the sixteen ounces; 17 grains being *chloride of sodium*, 3 *chloride of potassium*, with 17 cubic inches of *carbonic acid gas*. The WARMBRUNNEN has 35 grains of solids, 26 of which are *chloride of sodium*; the *carbonic acid gas* being 35 cubic inches. The WILHELMSBRUNNEN has 117 grains of salts, 104 being *chloride of sodium*, with 48 cubic inches of gas. Whilst the SOOLBRUNNEN has 129 grains, 114 of which consist of the same salt that predominates in the others, together with 14 cubic inches of gas.—Where alterative aperients are needed, these waters may perhaps be recommended. They are deemed useful in pulmonary, strumous, gouty, and uterine affections.

One advantage possessed by Soden is the presence of the two ferruginous springs of KRONTHAL; so that the visitor having employed the alteratives

of the first Spa, may strengthen the system with the mild chalybeates of the Stahlquelle or Wilhemsquelle. The climate of Kronthal is useful in chronic bronchial affections.

491. *Homburg, in Nassau.*

The air of Homburg is invigorating and bracing during the months of June, July, and August; but it is injurious to such as have delicate lungs, owing to the temperature being very variable. There are four cold (about 50° F.) muriated mineral springs. The most frequented is the ELISABETH-QUELLE, containing about 110 grains of salts in the 16 ounces, and being strongly charged with carbonic acid (48 cubic inches). The chief salts are *chloride of sodium* (79), the *chlorides of magnesium* and *calcium* (15), and *carbonate of lime* (11); with small quantities of *carbonate of magnesia, sulphate of soda, carbonate of iron*, and *silica*. The KAISERQUELLE has more *chloride of sodium* (117), more *chloride of calcium*, and a little more *iron*. The STAHLQUELLE has the same amount of common salt as the Elisabeth spring, but is more ferruginous than either of the others. While the LUDWIGSQUELLE is weak in almost all its constituents. The flavour of all the waters is refreshing, saltish, somewhat bitter, and ferruginous.

Gout, dyspeptic and other derangements of the abdominal viscera, strumous enlargements of the external glands and mesentery, debility of the reproductive organs, constipation, obesity, and hypochondriasis are the diseases most likely to be benefited. From two to four tumblerfuls of the waters are taken fasting during three or four weeks. Though chiefly used internally, there are baths, douches &c.

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492. *Baden-Baden, in Grand Duchy of Baden.*

This renowned Spa, in one of the most delightful valleys of the Black Forest, about six miles from the Rhine, has 16 weak saline springs, the temperature of which varies from 117° to 161° F. The chief spring, and the only one demanding notice, is the URSPRUNG; which has a transparent, inodorous saltish water. Its chemical constituents are merely about 23 grains to the 16 ounces, 18 grains being *chloride of sodium*. There are also $2\frac{1}{2}$ grs. of *sulphate of lime*, about 1-10 of a grain of *carbonate of iron*, with less than half a cubic inch of *carbonic acid*. Recent analyses have shown the presence of *lithia*, in greater abundance than in any other springs.

Though their efficacy must be slight these waters are often taken internally. Some drinkers add goat's milk to them, or whey, or aperient salts. But they are chiefly to be employed where simple hot baths are needed, while the invalid is enjoying beautiful scenery, in pure mild air. They may be recommended in chronic gout and rheumatism. The season lasts from the beginning of May until the 1st October.

The waters of WILDBAD some thirty miles from Baden-Baden, and situated in the kingdom of Würtemburg, contain only four grains of salts in the 16 ounces, and have a temperature varying from 86° to 98° F. Where hot baths and douches are needed in chronic paralysis, rheumatism &c., a six weeks' sojourn at Wildbad may perhaps be recommended. The climate is very bleak from November until May; and then in the four succeeding fashionable months the heat is most oppressive.

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493. *Kissingen, in Bavaria.*

Kissingen, one of the most fashionable watering places of Germany, is

situated in a fertile valley, about 30 miles N.N.E. of Würtzburg.—The tonic, laxative, and alterative waters are all cold (about 52° F.). The most important spring is the RAGOCZY, containing 65 grains of solids in the 16 ounces, according to LIEBIG, with 41 cubic inches of *carbonic acid gas*. The principal salts are *chloride of sodium* (45), *carbonate of lime* (8), *sulphate of magnesia* (4), *chlorides of potassium* and *magnesium* (5), with minute quantities of *chloride of lithium*, *bromide* and *iodide of sodium*, and *carbonate of iron*. The waters of the PANDURBRUNNEN have rather a smaller amount of solids; while those of the MAXBRUNNEN and of the THERESIENBRUNNEN are very much weaker, and contain no iron.

The Ragoczy spring is most used early in the morning, from three to six glasses being taken. In the evening the milder waters of the Pandur are preferred. The effect is to quicken the circulation, and to stimulate the secretions of the mucous membranes generally but especially those of the alimentary canal. Hence they are valuable in habitual constipation, congestion of the liver or kidneys, in dyspeptic eructations or flatulence, and in tubercular diseases of the mesenteric glands. Gouty and calculous cases also derive benefit.

The baths are prepared from the waters of the wells just named, some of the "mother-water" of the SOOLENSPRUDEL being frequently added. This spring has a temperature of 62° F.; and contains 187 grains of solids in the 16 oz., upwards of 100 consisting of *chloride of sodium*. The astonishing flux and reflux of the Sprudel is one of the sights of the town.

About 4½ miles from Kissingen is the Spa of BOCKLET, in Bavaria, which contains several chalybeate and a weak sulphur spring. The temperature of the waters is about 52° F.; while there is rather more than half a grain of *carbonate of iron* in the 16 oz., with 39 cubic inches of *carbonic acid gas*. They also contain a small amount of the *sulphates of soda* and *magnesia*, *chloride of sodium*, *carbonate of lime* &c. Independently of the constant interchange of visitors between Kissingen and Bocklet, the baths of the latter (especially the "douche ascendante") have a considerable reputation for the cure of sterility, and for breaking off the tendency to habitual abortion.

BRÜCKENAU, in Bavaria, is also only a few hours' drive from Kissingen. The waters contain scarcely any salts, but have about a quarter of a grain of *iron* in the 16 oz., with at least 35½ cubic inches of *carbonic acid gas*. Their temperature is 49° F. They are often employed by those who, after going through a course of the solvent waters of Kissingen, require a pure mild tonic.

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494. *Gastein, in Austria.*

A few hours' drive from Salzburg is the village of Gastein, in the most beautiful part of the Tyrol. It is one of the highest baths in Europe, being 3200 feet above the Mediterranean. The houses are grouped round the edge of the mountain torrent Ache, which here forms a splendid waterfall. The bracing alpine air is invigorating for such as have strong lungs, but the climate is often too raw and unsettled for the delicate invalid to depend upon it. Mean annual temperature 47° F.

There are six or eight very weak thermal springs, having the same chemical composition, but varying in temperature from 95° to 118° F. In 16 oz. of water there are only 2·68 grs. of solids, *sulphate of soda* being the chief (1·51). The waters, after cooling to about 90°, are used as baths, and are said to stimulate the nervous system. It seems certain that the

prematurely old, the hypochondriac, the paralytic, and the sufferer from chronic rheumatism derive benefit.

The waters of TEPLITZ, in Bohemia, very much resemble those of Gastein, as regards temperature and chemical power. They contain only about 4·64 grains of solids in the 16 oz.; the *carbonates of soda* and *lime*, with *sulphate of soda* being the chief ingredients. The baths are used in gouty and paralytic affections.

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495. *Friedrichshall, in Saxe-Meiningen.*

This place has long been noted for the manufacture of Glauber's salts and common salt. Of late years the waters have acquired a high reputation, especially for cases where it is necessary to promote excretion from the liver, kidneys, and bowels.

The bitter saline water of Friedrichshall contains about 194 grs. of solids in the 16 ounces, with 5·32 cubic inches of *carbonic acid gas*. The chief ingredients are *chloride of sodium* (61), *sulphate of soda* (46), *sulphate of magnesia* (39), *chloride of magnesium* (30), *sulphate of lime* (10), with small proportions of *sulphate of potash*, *carbonate of magnesia*, *bromide of magnesium*, *carbonate of lime*, and *silica*.—The dose is from three ounces to a pint or a pint and a half, according to the aperient effect required.

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496. *Carlsbad, in Bohemia.*

This town occupies the bottom of a narrow winding valley, on the banks of the Töpel, 70 miles W.N.W. of Prague. The season extends from the beginning of June until the end of September; but the month of May is very quiet, pleasant, and healthy. The "cure" generally occupies from five to six weeks.

There are several important springs, chiefly differing from each other only in temperature. The most important is the SPRUDEL; the waters of which bound upwards for four or five feet, and then fall back in foam while giving off clouds of vapour. The temperature is about 165° F., and there are some 45 grs. of solids in the 16 oz. The principal salts are *sulphate of soda* (20), *carbonate of soda* (9), *chloride of sodium* (8), and *carbonate of lime* (2); with small quantities of *sulphate of potash*, *carbonate of iron*, *phosphate of alumina*, and *silica*. The *carbonic acid gas* is nearly 8 cubic inches.—The SCHLOSSBRUNNEN contain only half the amount of *sulphate of soda*, double the quantity of *carbonic acid gas*, and have a temperature of 113°. The heat of the waters of the THERESIENBRUNNEN is 131°, and as regards important ingredients may be said to resemble the Schlossbrunnen. The MARKTBRUNNEN differ from the others principally in containing a little *iodide* and *bromide of sodium*.

The waters are chiefly taken internally, early in the morning and again in the evening. The dose varies from one or two glasses to ten or twelve; according to the stimulating and alterative effect on the digestive organs and abdominal viscera generally, which it is desirable to produce. The cases most benefited are,—liver and abdominal diseases, diabetes, gouty and rheumatic disorders, calculous affections, and hypochondriasis with dyspepsia and constipation. Old Indians, with enlarged livers, often derive remarkable relief. Baths of the cooled mineral water are now but seldom resorted to, though for one hundred and fifty years invalids only visited

Carlsbad for the purpose of bathing. Sometimes the peat soil from the neighbourhood, mixed with Sprudel water, is used as a poultice &c.

497. *Marienbad, in Bohemia.*

Marienbad, in the territory of the Abbey of Tepl and the district of Eger in Bohemia, is about five hours' drive from Carlsbad. The air is pure and dry, but changes in temperature take place rapidly owing to the height of the village—1912 feet above the level of the North Sea. The season lasts from the commencement of May until the end of September.

There are several cold (from 43° to 50° F.) saline chalybeate springs; the chief constituent being sulphate of soda, with a moderate quantity of iron and carbonic acid. The waters when drawn are quite clear, but as the gas escapes they become turbid from deposition of the carbonates. The KREUZBRUNN has 69 grains of solids in the 16 oz., with $8\frac{1}{2}$ cubic inches of *carbonic acid gas*. The principal salts are *sulphate of soda* (38), *chloride of sodium* (13), *carbonate of soda* (9), and *carbonate of magnesia* (3); with small quantities of the *carbonates of lime*, *lithia*, *iron*, *manganese* &c. The FERDINANDSBRUNN has nearly the same solid ingredients, but with nearly 14 cubic inches of *carbonic acid gas*. The WALDBRUNN is much weaker in *sulphate of soda* (7), and *common salt* (3), but its proportion of *carbonic acid gas* is $18\frac{3}{4}$ cubic inches. The waters of these brunnen are all used for drinking. The CAROLINENBRUNN has only 11 grs. of solids in the 16 oz., *sulphate of soda* being the chief; but there are $15\frac{1}{2}$ cubic inches of *carbonic acid gas*. The AMBROSIUSBRUNN is still weaker (7 grs. in 16 oz.), with 13 inches of gas; while the MARIENBRUNN has scarcely any salts (2 grs. in 16 oz.), with 9 cubic inches of *carbonic acid gas*. The well of the Marienbrunn is used only for water and gas baths; but the Caroline and Ambrosius waters are employed internally and externally.

The effect of the Marienbad waters is laxative, alterative, and tonic, in proportion to the dose (from one to six tumblerfuls); while they increase the action of the liver and kidneys, and promote appetite. Hence they are particularly valuable in chronic disorders of the abdominal viscera. The mud baths and poultices are made with the Marienbad water mixed with a black mineral pulverulent substance, brought from a neighbouring peat-bed. They stimulate the skin, heal chronic ulcers, and disperse glandular swellings. The gas baths (carbonic acid with a small amount of sulphuretted hydrogen) soothe muscular and neuralgic pains, remove torpor of the female sexual organs, and generally tranquillize the nervous system.

The bitter saline waters of PULLNA, in Bohemia, are very nauseous and indigestible, while they possess no advantages over the ordinary preparations sold by the chemist. Their chief ingredients are *sulphate of soda* (124 grains in the 16 oz.), *sulphate of magnesia* (93), *chloride of magnesium* (16), *carbonate of magnesia* (6), with *sulphates of lime* and *potash*.

498. *Eger, in Bohemia.*

This frontier town stands on the right bank of the Eger, 92 miles W. of Prague. In the district, some three miles off, is the spa of FRANZENSBAD. The tonic solvent waters of this spring have a refreshing acidulous taste, a temperature of 52° F., with 42 grs. of solids in the 16 oz. The chief of these are *sulphate of soda* (24), *chloride of sodium* (9), and *carbonate of soda* (9); together with the *carbonates of magnesia*, *lime*, *iron*, *lithia*, *manganese*, and *strontia*, and 40 cubic inches of carbonic acid gas.

The waters of the Franzensbad and other wells are taken internally and employed as baths. They strengthen the nervous system, improve digestion, stimulate the circulation, relieve bronchial affections, and act powerfully on the uterine organs. Mud and gas baths are likewise employed; the black mud containing iron, soda, lime, alumina, and ulmic acid. They are perhaps beneficial in old rheumatic affections, gouty deposits, and in paralysis without active disease of the nervous centres. The gas baths are considered as specifics for the cure of scrofulous ulcers.

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499. *Aix-les-Bains, in Savoy.*

This beautiful and sheltered town, 768 feet above the sea, may be reached by railway from Paris in about fifteen hours. The climate is mild but yet bracing, and is especially adapted to invalids from April until October. There are two chief springs; but as they are only slightly mineralized, the effects which they produce must chiefly be due to their temperature,—about 116° F. The SULPHUR-SPRING contains but little more than 3 grains of salts in the 16 oz., with a small quantity of *carbonic acid* and *sulphuretted hydrogen gas*. The ALUM-SPRING, so-called on the *lucus à non lucendo* principle, since it contains no alum appreciable to the senses, has the same composition minus the sulphuretted hydrogen.

The waters are chiefly used externally, and especially in the form of douches. They are valuable in chronic rheumatism, sciatica, rigidity of tendons or muscles after sprains and contusions, chronic skin affections, diseases of the bones, nervous disorders &c.

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500. *Baths of Switzerland.*

LEUK or LOUËCHE, on the Rhone, stands a little to the left of the high road passing through the Vallais to the Simplon, and is nearly 5000 feet above the sea. There are twenty-three thermal mineral springs, varying in temperature from 95° to 124° F. The latter is the heat of the St. Laurent or Lorenzquelie. All the waters have the same composition, the solid constituents being about 15 grs. in the 16 oz. The chief salt is the *sulphate of lime* (nearly 13), with small quantities of the *sulphates of magnesia* and *soda* &c. It is the custom to bathe in common; there being four public piscinæ, each about a yard deep, and each capable of accommodating some forty bathers, with their small floating tables. On the first day the patient remains an hour in the water, clothed in a long flannel gown; the duration being daily increased till it extends to four or five hours in the morning, and for a shorter period again in the afternoon. About the twelfth day, an erythematous rash called the *poussée* appears over the body, with prickling sensations of heat, and febrile symptoms; its disappearance being followed by desquamation of the cuticle. The duration of the bath is then gradually diminished by half an hour daily, until the cure is complete in some twenty-five or thirty days from the commencement. This peculiar practice is recommended in cases of scrofula, enlargements of the liver or spleen, chronic gout and rheumatism, obstinate eczema and psoriasis, old wounds and ulcers, calculous affections &c. The season is from May until October.

PFÄFERS, in the Canton of St. Gallen in the Grisons, is in a wild and sombre dell. The thermal water is conducted down the romantic glen of

the Tamina by wooden tubes, to the hotel and bathing house at Ragatz, in the valley of the Rhine. The salts in the waters are scarcely equal to 3 grains in the 16 oz.; the chief being the *sulphates of soda* and *lime*, with *carbonate of lime*. The temperature is nearly 100° F. The bath is used twice a day, for about an hour each time; and is useful in calming nervous irritability, and in relieving neuralgia, hysteria &c. The waters are also used for drinking,—from four to eight tumblerfuls. The invalid should be advised to reside at Ragatz rather than at Pfäfers.

TARASP, on the right shore of the Inn in the Grisons, has cold gaseous springs, somewhat resembling those of Marienbad. There are numerous wells, having their source in a rocky hollow, some 4300 feet above the sea. The chief are the Grosse Quelle and the Kleine Quelle, their composition being similar, and their temperature 45° F. Their salts (95 grs. in the 16 oz.) consist of *chloride of sodium* (29), *carbonate of soda* (27), *sulphate of soda* (16), and *carbonate of lime* (12); with small quantities of the *carbonates of magnesia* and *iron*, *iodide of sodium*, *sulphate of potash* &c. The *carbonic acid gas* is 32 cubic inches. These aperient and resolvent waters are useful in plethora of the abdominal viscera, and in incipient phthisis.

BADEN, a few miles from Zurich, on the left bank of the Limmat, has several thermal gaseous springs. The temperature of the waters ranges from 117° to 122° F., and the salts are in the proportion of 34 grs. to the 16 oz. The principal are, *chloride of sodium* (13), *sulphate of lime* (10), smaller quantities of the *carbonates of lime* and of *magnesia* and of *strontia*, *sulphate of soda*, and the *chlorides of potassium* and *magnesium* &c. There are 22 cubic inches of *carbonic acid gas*, 125 of *nitrogen*, and an odour of *sulphuretted hydrogen*. The action of these waters is chiefly diuretic and constipating. They are recommended in gouty and rheumatic diseases, in chronic diarrhœa with congestion of the bowels, and in incipient phthisis. They are used internally, and externally as baths and douches. The climate of Baden being mild, invalids often remain throughout the winter.

BIRMENSDORF has bitter purgative waters resembling those of Pullna. They are cold (46° F.), have only traces of carbonic acid gas, and their solid constituents slightly exceed 5 grs. in the 16 oz. They are used principally for exportation.

SCHINZNACH, in the canton of Aargau, in a valley through which flows the Aar, five miles from Baden, is well known for its saline sulphurous thermal spring. The temperature of the waters is about 94° F., the solid constituents being nearly 25 grs. in the 16 oz., with $1\frac{1}{2}$ cubic inches of *carbonic acid gas*, and $6\frac{1}{2}$ of *sulphuretted hydrogen*. The chief salts are, *sulphate of soda* ($6\frac{1}{2}$), *sulphate of lime* (7), and *chloride of sodium* (5); with smaller quantities of *sulphate of magnesia*, *chloride of magnesium*, and *carbonate of lime*. The invalids both drink and bathe; the baths being used for twenty minutes at first, and afterwards for a longer time if necessary. The *poussée* is milder but appears more quickly than at Leuk. The waters have a reputation for relieving strumous and rheumatic affections, for curing skin diseases, and for healing callous spongy ulcers. The season lasts from the middle of May to the end of September.

THE END.

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